REPORT

ON THE PATHOLOGICAL MUSEUM OF THE BELFAST MEDICAL SOCIETY.

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(Continued from p. 477, vol. XI.)

THE present Report comprises twenty-one illustrations.

XXXIX.—PSOAS ABSCESS; CIRRHOSIS OF LIVER.—A lad named Higgins, aged 15, was admitted into the General Hospital, Belfast, in the month of September, with symptoms of fever. One of his brothers had died anasarca, and another, of pulmonary consumption. The symptoms were so slight, that in a few days he was transferred to the convalescent ward, where, after the lapse of a week, anasarca was observed to be commencing. He was mercurialized, and digitalis and acetate of potash administered without effect. The swelling increased, especially in the abdomen, which became so enlarged as to suggest paracentesis. The urine was repeatedly examined, but on no occasion was it albuminous. In this state he died.

The thoracic and abdominal cavities were carefully examined. In the former, the lungs were perfectly healthy, as also were the heart and pericardium; a small quantity of serous fluid occupied the pericardial sac. The liver was lobulated, especially the left lobe, which presented a well-marked specimen of cirrhosis. The spleen was greatly enlarged, but its texture was normal. The kidneys were also over the usual size; and a section of the cortical portion presented the yellow, granular appearance and soft consistence of incipient "granular degeneration." The peritoneal covering exhibited slight, straggling injection, and a considerable quantity of straw-coloured and slightly turbid fluid occupied the pelvic cavity. On deeper inspection, an abscess was detected occupying the site of the right psoas muscle, burrowing along its entire course, from the diaphragm to the groin, without, however, presenting any prominence in the latter situation. A portion of the liver has been preserved.

In this case the febrile symptoms were in all probability due to the suppuration in the psoas muscle, while the inefficiency of the treatment is readily explained by the chronic and permanently disorganized condition of the liver, not to mention the affection of the other parenchymatous organs.

XL.—SCHIRRUS (?) OF THE PYLORUS; THICKENING AND CONTRACTION OF THE ILEUM AND COLON.—John Hisslop, aged 37, was first seen by the author on the 18th November. He was a man of large frame, but much emaciated, and he dated the origin of his illness some fourteen years previously. The symptoms were always

gastric, chiefly vomiting, pyrosis, acidity, flatulence, and costiveness. He never complained of pain until the past summer, and blood appeared in the matters vomited for the first time in the beginning of October. When pain was first felt it was in the right side and shoulder, afterwards variously over the abdomen. The vomiting came on generally about six hours after taking food. The appetite was indifferent, the mouth felt dry, but there was no thirst; and a peculiar taste, like oatmeal cake, was always experienced before vomiting. He never perspired, and the skin was uniformly dry and scaly. The tongue was furred, and brown in the centre. The matter vomited was of different colours and consistency; when not the ingesta, it was a green fluid, or white and effervescing, or like strong black tea. The urine was of a dark hue and scanty. His pulse was 80, soft and feeble. His nights were rendered miserable by shifting abdominal pains and obstinate flatulence. Dark scybalæ, enveloped in mucus, were frequently removed by enemata, but without such means his bowels remained obstinately obstructed until December 4th, when they were spontaneously freed, and dark, tough, foul evacuations came away, but without any relief; on the contrary, symptoms of impending dissolution now set in. The pulse rose to 120; the features became shrivelled; and pain of the abdomen persistent, which, with constant sickness, and intolerable flatulence, made existence agony itself. In three days after he died, suffering until the last hour.

An examination of the body was made sixteen hours afterwards. The abdomen and pelvic regions were alone inspected. The parietes were without fat; a large volume of gas escaped when dividing the peritoneum, and a brownish turbid fluid, amounting to twenty-four ounces, occupied the cavity. The liver was friable and slightly congested; the spleen was normal. The stomach was contracted. There was distinct thickening of the short curvature in the submucous tissue. The pylorus was also thickened to a great extent, and its caliber much diminished. A section of the mass presented a white fibro-cartilaginous structure, having the appearance of schirrus. The duodenum was normal. A portion of the ileum, within one foot of the cæcum was contracted, and its coats thickened, as at the pylorus. The cæcum and part of the colon were enormously distended with feces of natural consistence and appearance. The transverse colon at its one end was adherent to the pylorus, and at the other, presented narrowing of the tube and thickening of the coats at the inner margin. The sigmoid flexure and the rectum, though contracted, were filled with scybalæ.

XLi.—This specimen consists of the elementary portions of the occipital bone and atlas in a case of ENCEPHALOCELE of the posterior lobes, which protruded, through the triangular part of the occipital. A cast of the tumour, as it appeared before dissection, is also in the collection.

XLII.—The bones of the foot and leg, in a case of internal VARUS, which were removed at the General Hospital in 1849.

XLIII.—A rare MALFORMATION. The vena azygos may be seen on the *right* side of the aorta, formed from the veins of the lower extremities, while the inferior cava communicates with the veins of the portal system alone.

XLIV.—Scrofulous disease of the TESTIS, removed by excision from a man aged 32; the other testicle was likewise affected.

XLV.—PURPURA; CHRONIC BRONCHITIS AND EMPHYSEMA; ENDOCARDITIS AND DILATATION; BRIGHT'S DISEASE.—Charles Keating, aged 41, a sailor, of irregular habits, was admitted into hospital November 29, 1851. He was subject since a child to cough and dyspnoea. Anasarca appeared last May, and continued with intermissions ever since. Spots of well-marked purpura were observed on the extremities six weeks before admission, since which time epistaxis, hemoptysis, and bloody evacuations have been the only new symptoms. His countenance was pale and bloated, and, though he did not complain of palpitation, or any uneasiness in the cardiac region, the history of the case suggested a careful examination of the heart. Over the region of the valves was heard a distinct double murmur, diminishing in intensity towards the apex. This, with the visible arterial pulsations which were observed in the neck, sufficiently indicated the lesion in the specimen presented. There was no extra cardiac dulness, but the lungs anteriorly were very resonant on percussion, and emitted to the ear bronchial râles, with prolonged expiratory murmur, indicative of emphysema, while posteriorly there was some dulness at the base, with coarse crepitant and bronchial râles, showing the probable existence of congestion, or œdema of the air-cells, and smaller air-tubes. The urine was below the normal specific gravity, and coagulable. He complained much of pains and stiffness in the arms, especially the right, where the purpura was well marked. As the eruption declined, under the treatment employed, the intelligence became affected. Delirium was noted on December 4th with imperfect articulation, and continued with remissions until, the 14th, the day of his death. During this interval the anasarca had disappeared, but the urine remained unchanged.

On examination, after death, of the different organs, the diagnosis was verified in every particular, except as regarded the dilatation of the left ventricle. There were bronchial congestion and abundant œdema, with patches of emphysema on the anterior margins of the lungs. The borders of the aortic semilunars were fringed and studded with a rough coating of lymph, causing obstruction to the flow of the blood, and allowing regurgitation. The mitral was similarly but not so extensively diseased, one section being alone affected. The cavity of the left ventricle was increased to double its natural dimensions, while the walls remained of their normal thickness. The liver, spleen, and intestines were natural. The kidneys were greatly enlarged and softened, and on section presented the usual appearance of the first stage of Bright's disease.

XLVI.—This specimen is the left parietal and left half of the

frontal bone, presenting an example of the influence of TERTIARY SYPHILIS. A considerable portion is destroyed by necrosis.

XLVII.—The skull of a young female who died of SYPHILITIC DISEASE. The palate, and nasal and ethmoid bones are partially destroyed, and the malar and maxillary present specimens of osteitis.

XLVIII.—The femur, tibia, and fibula of one extremity here exhibit well-marked SYPHILITIC EXOSTOSIS.

XLIX.—A portion of the dura mater of a child, aged five years, presenting RUPTURE of the SUPERIOR LONGITUDINAL SINUS, the result of an injury.

L.—This specimen is the cerebellum of a man aged 40 years, who had left HEMIPLEGIA. An apoplectic cell exists on the left side.

LI.—ACUTE PERITONITIS; ULCERATION OF THE RECTUM.—John M'Givorn, aged 55, infirm, was admitted into the surgical wards of the General Hospital, Belfast, on the 27th of May, 1851. He was subject to a purulent discharge from the anus for the last four months, with pain and occasional hemorrhage. A careful examination of the rectum showed no trace of a fistulous opening, as had been suspected before admission. On 5th June, he began to complain of fulness and tenderness of the abdomen, which was tympanitic on percussion. The bowels were confined for two days; the pulse quick and weak; and the tongue covered with a brown fur. The symptoms continued, notwithstanding the usual treatment. Vomiting occurred on the 7th, with exceeding tenderness and swelling of the abdomen, and the pulse at 132. He died on the 9th.

The abdominal and pelvic organs were alone examined. After section of the parietes, the small intestines appeared greatly distended. The peritoneal surface was highly injected, and smeared over with recent lymph effusion. There was some adhesion at different points, and a large quantity of thin yellow exudation. Internally the rectum was found to be diseased. Its entire surface, from the sigmoid flexure to the anus, was thickened and ulcerated, and the free surface of the ulcers covered with lymph, just as is observed in diphtheritic inflammation. No appearance of fistula could be detected. The other organs were natural.

LII.—PHTHISIS, CHRONIC PNEUMONIA, AND PLEURITIS.—David Patterson, aged 35, a labourer, of drinking habits, dark complexion, and of greatly emaciated appearance, was admitted into hospital on the 20th October, 1851, labouring under an illness of one year's duration. Dyspepsia and debility were the first symptoms, which continued with remissions for a period of eight months, when he was seized with cough, at first slight, but soon becoming very harassing. He never spat blood, or complained of lateral pains. The chief symptoms on admission were, short and constant cough, sternal soreness, and lividity of the lips, rigors, and perspiration. The tongue was clean and moist; the pulse small, quick, and feeble; and anorexia and diarrhoea attended. On

examination, the apex of the left lung gave marked evidence of tubercular softening; and at the base the dull percussion, with tubular respiratory murmur, indicated condensation of the pulmonary substance. The right lung presented signs merely of vesicular bronchitis and pulmonary congestion. Treatment was of no avail. Hectic and the diarrhoea carried him off on the 19th of November. The body was greatly emaciated. The lungs, which were the only parts examined, were large, and fully occupied the thoracic spaces, without the collapse usual on raising the sternum. This was owing to the numerous adhesions, which were very strong and old, and observed principally at the apices. There was a very small quantity of liquid effusion. Numerous cavities were seen in the upper lobe of the right lung, and a large one at the apex of the left. Section of either lung presented extensive consolidation (red hepatization), in the midst of which might be observed a white mottling of tubercle, presenting very much the appearance, in colour at least, of a mixture of pepper and salt. This case closely resembled that of Ellen Ferguson (No. XXXII. of these Reports), and presented a good example of a combination which we believe is much more common than generally supposed, and accounts for many anomalous symptoms occurring in protracted phthisis, where the pneumonic complication has not been suspected.

LIII.—LUMBAR ABSCESS; HYPERTROPHY OF LIVER; OLD PLEURITIS.—John M'Kenna, aged 25, a wood-turner, of scrofulous appearance, was admitted into hospital on 29th of April, 1851. He was twenty-one months ill. The first symptom was pain in the right iliac and lumbar region, which continued with frequent intermissions. In the course of a year an abscess had formed, and soon spontaneously opened in the region described, which has been discharging ever since. Three months ago he contracted a cough, which has continued very severe. He has lost flesh much, and his appetite and natural sleep have left him for a considerable time. The examination of the lungs chiefly indicated bronchitis, with some evidence of tubercle in the left apex. The feet and ankles were oedematous, the pulse quick and small; and there were present slight dysenteric symptoms. On the 7th of June erysipelas appeared on the face, attended with great prostration and involuntary evacuations. He expired on the 12th. The body was emaciated to the last degree. Both lungs were adherent by old pleuritic bands, and were with difficulty removed for examination. The left lung presented small masses, grey and gristly, like small portions of boiled tendon. On section, either lung exhibited abundance of white frothy serosity, bursting from the bronchial tubes; the anterior edges of both lungs were emphysematous. The heart was extremely small. The liver was enormously enlarged, very dense, and presented a fawn colour on section. The spleen was normal. The peritoneum over the small intestines was highly injected, and some loose flocculi of imperfect lymph were observed adherent at a few

points. A very few slight adhesions of the peritoneal layers were seen between the liver and parietes. About two quarts of straw-coloured fluid escaped from the peritoneal cavities. The mesenteric glands were enlarged and hardened, but not tubercular. The intestines were distended with gas throughout; their coats extremely attenuated, and the mucous membrane uniformly pale. The kidneys were small, but otherwise normal. No trace of the lumbar abscess was seen in the peritoneal cavity. The gristly substances in the left lung were examined under the microscope, and found to consist of an amorphous granular substance and oil globules. A thin section of the liver, in like manner, presented well-marked congestion of both hepatic and portal systems. This case, during life, was obscure in several points. Phthisis was suspected in the apex of the left lung, from the signs and the general appearance. These are, however, explained by the co-existence of bronchitis and pleuritic thickening on the one hand, and the effect of prolonged suppuration on the other. The sub-acute peritonitis and the hypertrophied liver were not by any means clearly indicated during the progress of the case, as œdema of the ankles is frequently met with in the closing days of life, independently of hepatic disease; and the tympanitic state of the intestines completely prevented a proper examination of the abdominal organs.

LIV.—URINARY CALCULI FROM A FEMALE.—These calculi, two in number, were presented by Surgeon Stewart, of Carrickfergus, who removed them on the 15th May, 1851, by the method practised by Mr. Ferguson, of London*. They appear to have been partially connected, and surrounded by filamentous tissue, as the convexity of one corresponded to a concavity on the other. The connexion must have been, however, very slight, as they were removed separately, and the last extracted was imbedded in a cyst-like duplicature of the bladder. On chemical examination they were found to be composed of phosphate and carbonate of lime. They weighed 160 grains and 100 grains respectively. Mr. Stewart forwarded, along with the specimen, the following account of the case, and especially of the manner of operating:

"Mrs. G., aged 50 years, the mother of several children, had been afflicted with symptoms indicating the presence of stone in the bladder for nearly two years. Having passed a silver catheter, I felt and heard it strike against a stone. I explained to her that an operation would be required for its removal; to which she assented. The operation was performed by me, assisted by my son, on 15th May, 1851. The method which I adopted consisted in dividing the external orifice of the urethra, for about half-an-inch, with a probe-pointed bistoury passed along a grooved director (the patient having been previously placed on a table, and secured in the usual way for lithotomy). Then, having introduced the point of my left fore-

* *Lancet*, 12th September, 1846.

finger into the wound, I gradually insinuated it, with a semi-rotatory motion, into the bladder; this was easily affected, the posterior part of the passage being considerably dilated, whilst the external orifice was in the natural state, and possessed considerable rigidity. Having touched the stone with the point of my finger, I slid along it a pair of nasal polypus forceps (the blades of which being six inches long, and their junction three inches from the points, I did not require to separate the handles more than the diameter of the stone), and then, withdrawing my finger, the stone was seized and extracted with a gentle rotatory motion. Having passed my finger again to ascertain if there were any more calculi, I detected another inclosed in a cyst, and which required to be detached from it with the finger (using at the same time firm pressure with the hand of my assistant above the pubis) before it could be seized with the forceps and extracted. It was about the size of a nutmeg. My patient recovered completely the retentive power of the bladder, and is now in good health. This plan of operating is the same in principle as that published by Sir Philip Crampton in the *Dublin Quarterly Journal* for February, 1847, p. 2, but it is effected by a more simple apparatus, and, in my opinion, causes less pain to the patient; as, with the left forefinger, used as a dilator, the surgeon is better able to judge of the degree of resistance the urethra makes to its passage, than by any other dilating material whatever, and can more or less gradually insinuate it into the bladder, according to the degree of resistance offered."

LV.—ENORMOUS FIBROCYSTIC TUMOUR OF THE NECK.—This tumour was situated on the left side, and measured about twenty inches in its extreme length, extending from behind the left ear, in an oblique direction to the lower part and opposite side of the trachia. It sank deeply into the soft parts behind the left ramus of the jaw, so as nearly to obliterate the passage of the fauces, pressing upon the oesophagus and larynx. Its extreme circumferential breadth measured fifteen inches, and its weight was nearly five pounds. Upon section the mass presented the usual fibrous structure, and in the centre, a distinct cyst, half filled with a cheesy matter, was observed, and at a point nearer the surface, a congeries of loaded vessels gave this part a melanotic appearance. The specimen was presented by Dr. James Moore, one of the surgeons of the General Hospital.

The subject of the case was a man, aged 28, a native of Lisburn. At the period of attendance his appearance was somewhat emaciated, his countenance pale, with an anxious and care-worn expression. He stated that the tumour originated fourteen years previously, at first not larger than a pea, and situated beneath the lower jaw, perfectly moveable under the skin, and at the time attracting but little attention. During the first two years it increased but little, but afterwards it had progressively and regularly enlarged. The surface of the tumour presented no unusual appearance. The only complication elicited from the history was, that he had been latterly

complaining of chronic dyspepsia. He was submitted to consultation on his admission to the Belfast General Hospital. Considering the great size (latterly rapidly increasing and threatening asphyxia), its probably non-malignant nature, and its relative position not involving the main vessels,—and further, as he strongly expressed a wish for the operation, it was deemed expedient to remove the mass completely, and thus give the patient the only chance of prolonged existence. The steps of the operation were briefly as follows:—An incision was made over the centre of the tumour, in the direction of its long diameter; the skin on one side was dissected back, and the tumour gradually and cautiously turned out of its berth, in doing which, each incision was made upon the tumour itself. Some difficulty was felt in removing one of its lobes, where it had forced itself deeply into the soft parts, behind the ramus of the jaw. Not more than four ounces of blood were lost during the entire operation, which lasted during three-quarters of an hour, though one inch in length of the carotid artery, immediately below the bifurcation, was exposed, and the occipital artery divided. Both the carotid and the jugular vein remained completely unconnected with the tumour, thus corroborative of the diagnosis. The patient bore the operation with the utmost fortitude. The immense gaping wound was filled with lint, and a light compress and bandage applied. An hour after the operation the pulse was only 85. Unfortunately, however, secondary hemorrhage occurred, in about four hours afterwards, to the extent of half-a-pint, which was found to proceed from a wounded branch of the occipital. This was, of course, immediately stopped by securing the vessel. The pulse and respiration now continued to improve, and all seemed going on well, until the following morning, when diarrhoea and vomiting supervened, and next day he sank.

LVI.—TUBERCLES IN THE BRAIN.—This specimen consists of the portions of the brain of a child, aged three years, presenting small masses of tubercle, four in number in the cerebrum, and one in the cerebellum. During the last few months of its life, repeated convulsions were the chief symptom. Tubercular matter was also observed in the lungs.

LVII.—ULCERATION OF THE DURA MATER.—This condition originated from injury which occurred during the operation of trepanning by an hospital surgeon; from *Lizars' Collection*.

LVIII.—CALCAREOUS DEPOSIT IN THE ARCH OF THE AORTA.

LIX.—THE TUNICA VAGINALIS IN HYDROCELE.

Case of Peritonitis following the Rupture of an Ovarian Tumour in a Female two months pregnant; Recovery. By JOLLIFFE TUFNELL, F.R.C.S.I., M.R.I.A., Surgeon to the City of Dublin Hospital, &c. &c.

HAVING recently brought under the notice of the profession^a a case of peritonitis succeeding the swallowing of a small portion of a turkey's feather, which, lodging in a fold of the large intestine, occasioned death by perforation of the bowel, illustrated thereby the trifling cause by which a fatal termination may sometimes be produced, I purpose now to detail the particulars of a not less interesting example, where peritonitis of the most formidable character followed the rupture of the attachments of an ovarian tumour in a pregnant female, where all the symptoms of intercepted intestine existed for four days, where extreme salivation followed the employment of mercury, where the tumour itself enlarged rapidly after the accident, and yet where not only did recovery take place, but utero-gestation was not interfered with, the patient going her full time, and being delivered of a full-grown living child. The two cases exhibit thus a striking contrast between the retentive powers of life in different individuals under circumstances of a somewhat similar nature.

Mary D., a finely-made, healthy looking woman, menstruated for the first time at 16. She married in the succeeding year, and had her first child within ten months. She was next confined at 21, and completed her third pregnancy at 23. This was a twin birth, after a lingering labour of two days, and was followed by post-parturient flooding. The hemorrhage seems to have been excessive, and to have depended upon inertia of the womb; for her account is, "that the doctor, on reaching her, took the first thing at hand, which happened to be a thick square book, and bound it very forcibly on her belly, remaining for many hours by her side, giving her brandy and wine."

She suffered much upon this occasion, and was greatly reduced by the loss of blood, yet, nevertheless, suckled both children herself. Her constitution was much weakened by this effort, coupled with the preceding loss of blood, and, consequently, the next conception proved abortive, as she miscarried at about three months. Her next child was born when she was twenty-five, the sixth at twenty-seven, and the seventh at twenty-nine years of age.

About three months after the last birth, she for the first time felt uneasiness in the right iliac fossa. It was not constant, but came on whenever she took much exercise, or on lifting any weight. After persisting for a longer period than usual, she one day examined the part, and then for the first time detected a tumour the size of an egg. It was oval, even, and hard, "*feeling like the gristle of*

^a Read before the Surgical Society of Ireland, February 7, 1852, reported in the Dublin Medical Press, February 18, 1852.

meat," moved freely from side to side in the abdomen (as she lay on her back), but fell forwards when she stood upright. This tumour increased very slowly but progressively in size, until it assumed the dimensions and somewhat the shape of a large breakfast-cup. Before the menstrual period it always grew fuller and more heavy, remained stationary during the flux, and then receded again. As it permanently dilated so did the uneasiness increase, until at length she could hardly take an ordinary walk, or carry a light basket in her hand, without experiencing great pain in her hip, round the crest of the ilium, and down the thigh. The catamenia were regular, and the functions of the rectum and bladder naturally discharged.

Such was her previous history up to the night of the 18th of October, 1850. She suffered much pain the preceding evening from having taken more than usual exercise during the day, and consequently retired early to bed. In the night, or rather towards morning, she was awakened by the crying of her child, who was lying on her right side in the bed. Being upon her back at the time, she endeavoured to lift it across from the right to the left side, and, in making considerable muscular effort for this purpose, "*felt the tumour tear, rise up out of the flank, and twist itself over*. Immediately the most excruciating pain followed, shooting from the groin to the back, of a sharp, boring character, like a long-continued labour pain.

Faintness and collapse supervened, and for a considerable period she remained bordering on this state. After rallying, the agony returned, and she was in the following condition when I was called to her about 8, A. M.:

Lying on her back, with the knees drawn up, crying in a piteous manner, she was evidently in the greatest possible distress. The hands were clasped over the abdomen, and she was afraid to move, breathe, or even stir. I had much difficulty in making an examination of the belly, but I did so sufficiently to enable me to detect a large globular body, of a firm, even consistence, lying on the right side of the abdomen, midway between the crest of the ilium and umbilicus. That this tumour itself, or its attachment, had recently ruptured there was no doubt, and as such I looked forward to the issue of fatal peritonitis.

I prescribed a full dose of laudanum, viz. sixty drops, at once, and ordered hot fomentations to the belly, to be followed by laudanum sprinkled freely over the surface, and a lavement of tepid water to be injected.

At, 3, P. M., I visited her again. The opium seemed to have had no effect. She was complaining greatly of pain and tightness across the abdomen. In addition to this she was vomiting greenish bile, and her countenance was indicative of, if possible, increased distress. The pulse was very frequent and small. I now bled her to sixteen ounces, and ordered leeches to be applied to the abdomen, but, before doing so, I made a long-continued effort to restore the tumour to its former position by manipulation, and turning her upon her side. In

this, however, I altogether failed, the tumour remaining steadily lodged upon the small intestines.

I prescribed two grains of calomel, with half-a-grain of opium, to be administered every second hour; sherry-whey and Wenham Lake ice to be given as she desired, with small quantities of cold chicken tea.

The next day she had further declined. The vomiting had become almost incessant, the attempts to discharge the stomach being now repeated so frequently, that she was lying with her head over a small basin kept ready to receive the contents. No stool had come away after the injection, nor had the bowels acted. The tenderness of the abdomen was so great that she would not allow the slightest examination to be made, or any further effort to dislodge the tumour to be attempted. No water had been passed since the accident, the catheter, therefore, was introduced, and some high-coloured urine drawn off. The same treatment was continued, with the addition of half-a-drachm of mercurial ointment being well rubbed into the inside of the thighs every eight hours.

October 21st (third day).—Peritonitis had become determined; the belly distended and acutely painful; the breathing rapid and thoracic; the pulse hard, small, and very frequent; the vomiting persistent, and no evacuation from the bowels. Sinapisms were applied to the epigastrium, mercury and opiates continued, wine very freely given, and beef-tea and chicken broth as desired. The catheter was also regularly employed. The mouth had already become sore.

October 22nd (fourth day). The patient was now in a most critical condition; the vomiting incessant; the belly tympanitic; the head sunken; and the vital powers beginning to decline. Salivation had fully ensued, yet no stool had passed from the bowels, and eighty hours had elapsed since the commencement of the attack.

Under these circumstances I deemed it desirable to summon a consultation to consider the propriety of resorting to operative interference. In this I was kindly assisted by my colleague, Dr. Williams, by Dr. Churchill, and Dr. Carte. Upon our meeting and examining the case, a new feature, however, presented itself, the patient suggesting the possibility of her being pregnant, as her last change had not made its appearance, and the general regularity of its occurrence made her think she might be so. This assertion necessarily decided the impossibility of interference, and it was considered that nothing more could be done than to continue the former treatment, viz., the use of opium in full doses, and to support her with beef-tea and wine; the effects of mercury having been already fully produced. This plan was accordingly followed out; the wine was liberally poured in, and her strength thus kept up. In addition to this, I should mention that the surface of the abdomen had been painted with liquid blister, and raw cotton applied over all.

October 23rd (fifth day). Early this morning a discharge of green, slimy, mercurial evacuation began to pass from the bowels.

As the day advanced, this increased in quantity, and for several hours it continued to run away without effort or pain. The vomiting (on its supervention) materially declined, and the countenance at once became less indicative of distress. The same treatment was steadily pursued.

October 26th (eighth day). The improvement since the last report was considerable; the vomiting had altogether subsided, and the peritonitis was declining, but the effects of the mercury were now causing much local annoyance. The lower lip was ulcerated throughout, and the inside of each cheek in a state of superficial slough. Clove gargle was used for the salivation, and afforded marked and immediate relief. The only other addition to the previous treatment was the substitution of port for sherry wine.

October 30th (twelfth day). Much improvement had taken place in the general condition of the patient. A stool of healthy fecal character was passed this day, and for the first time since her illness she made water without the aid of an instrument. A flannel binder, in the form of an 18-tailed bandage, was now applied to the abdomen, and tightened to a degree that she could conveniently bear. This afforded much comfort and support, and four hours after being put on, she turned over upon the right side.

November 1st. The slight change of position upon the 30th was productive of much ill effect. She had return of pain in the abdomen, with sudden starting soreness in the tumour, darting from the crest of the ilium through the respiratory muscles of the right side; stiffness of the leg also followed towards evening, extending from the knee to the foot.

Upon examination of the extremity, it did not appear œdematous or swollen, but the superficial veins were prominently distended, whilst those of the opposite limb were not even visible to the eye. Repeated fomentations were ordered to the leg, and a poultice of linseed-meal, made with a drachm of the extract of belladonna dissolved in a pint of boiling water, directed to be applied over the whole surface of the abdomen, which was still raw from the effects of the blister, the cutis having ulcerated throughout.

November 2nd. She had experienced relief from the belladonna, but had a rigor in the night. The veins of the leg and thigh, in addition to being prominent, were tender, and the limb was œdematous throughout. The tumour, too, was considerably enlarged. The opiates, which had been diminished in quantity, were now again resumed as before, viz., half-a-grain of solid opium every third hour, and a dose of thirty minims of the tincture given at night. Wine, beef-tea, and jelly, ordered to be taken as desired.

November 3rd. The phlebotic tenderness and fulness of the veins had decreased, but the swelling of the leg remained the same, and there was much pain felt in the course of the peroneal nerve, but altogether, however, the patient was better, the voice stronger, and there was more general power; the sloughs had separated from the cheeks, and left a healthy-looking surface underneath.

November 5th. She had another relapse. Being better the preceding day, she was tempted to try and sit up in the bed. This was followed by vomiting of yellow bile and a rigor, which lasted for four hours. She had some degree of strangury also. The soreness and inward pain of the tumour complained of on the former occasion had returned, also, in an increased degree, and some of the darting pains through it were so severe as to make her rise up involuntarily in the bed. A careful examination of the tumour was now made, but no sign of suppuration could be detected either in it or elsewhere. The parietes of the abdomen were not inflamed, and the integuments glided freely over the tumour. There was no increase in the subacute phlebitis of the leg, or any visible cause for this constitutional disturbance. The patient's aspect was more anxious, the appetite had declined, and the night had been passed in restlessness and pain. A very full opiate was prescribed to be taken in the evening, the wine to be given more freely through the day, and a grain of sulphate of quina every fourth hour.

November 8th. She was doing favourably. The general soreness of the tumour continued, but the darting pain was gone. The pulse was steadier and had more power.

November 17th. Since the last report there had been a gradual and steady amendment of all the symptoms. The peritonitis and phlebitis both declined, whilst the vital powers correspondingly increased. The tumour now gave very little uneasiness. The surface of the belly was still discharging pus copiously from the blistered parts. This appeared to afford permanent and marked relief. The secretions and excretions were natural.

It would be tedious to follow up this case further through the stage of convalescence; I shall, therefore, merely state that recovery was gradual and unchecked. She remained upon her back in bed until early in February, when she cautiously got up. In March she took exercise about the room, and in April went out of doors. During all this time her pregnancy went steadily on, but the tumour also increased considerably in size, and became elastic to the touch, and when last examined (prior to the distention of the abdomen from parturition being so great as to prevent its outline from being felt) it appeared to be about the magnitude of an ordinary child's head, and to occupy nearly the same situation as before, inclining, however, rather more to the right side.

She gradually gained strength, and prepared for her confinement, which she expected to take place in June. I called upon Dr. Shekleton, of the Rotundo Hospital, and mentioned the case to him, requesting the favour of an admission for her into the Lying-in Institution. This he most kindly afforded, and I left her under the assurance that the labour would be conducted there. On the night of the 17th June she felt poorly, but did not make any complaint, and retired to bed. At about 2 o'clock in the morning labour-pain came on. She awoke her husband, who went for a car, and who returned in less than three-quarters of an hour, but found the child

already born in the bed. The funis was round the neck, and the infant livid from constriction and want of air. It was a full-grown male. For some time after release it remained insensible, but subsequently revived, and cried loudly and well. Towards the afternoon it began, however, to decline again, refused the breast, and grew faint, and died early the following day.

As regards the patient herself, she recovered speedily and well, and left her bed the eleventh day. The lochia, having remained for the customary period, gradually declined, and were succeeded by healthy menstruation, which continued up to the 25th of November last. Since then no change has come on, and there is reason to conclude that she is pregnant again.

Now, as regards the tumour, the most interesting fact is to be observed, that it has receded altogether. From the size of a cocoa-nut, or child's head, it has dwindled down to that of a kidney or small egg. From an elastic, encysted feeling body it has collapsed into a firm fibrous or solid lump, situated in the natural position in the course of the broad ligament, deep in the cavity of the pelvis. It exercises no influence upon the patient's health, which is hale and robust; gives no pain except at change of weather, or after exercise of more than a moderate kind. When turning from side to side in bed she feels some uneasiness or tightness in her hip. At the monthly period it becomes slightly enlarged, but after the catamenia have disappeared, declines again.

The history of this case I believe to be the following:—In the muscular effort made by the patient on the 18th of October, when lying on her back, she ruptured the attachment which had formed between the body of the tumour and the peritoneal lining of the pelvis; possibly, in addition, some cell or cyst of the tumour might have also given way, but whether this was so or not, the body of the tumour twisted round upon the small intestine, and, by its constriction of some portion of the gut, occasioned the access of those symptoms which, though common to peritonitis, are so much more marked in strangulated bowel, and which were so strongly persistent in this case. The combined action of the mercury and blistering (both carried to what might, perhaps, appear to be an excess) were, together with the opium, the means of meeting the peritonitis, but the purgative action of the mercury, by its drain on the intestines, was mainly the cause of successful issue, by unravelling the intestine, through the medium of the exhalent diarrhœa, which, filling the gut with fluid matter, forced under peristaltic action a passage through the bowel. Had not wine been liberally given from the first, the strength of the patient could never have borne up against the fearful odds with which she had to contend. The tumour of the ovary, under the stimulus of the attack, developed itself in the usual encysted form, but the pressure from uterine enlargement upon recently generated cysts was sufficient to induce absorption of them and their contents, the only structure capable of resisting the absorption process being the hard, fibrous stroma of the original

tumour, and which still continues to exist. From the relapses which followed upon both occasions of altering position, the conclusion must be drawn, that the utmost attention should be paid in any similar case to keeping the patient recumbent on her back for some considerable time after the more acute and urgent symptoms have declined.

Case of Encysted Tumour of the left Labium Externum, removed by Operation. By CHRISTOPHER S. BLACK, M. D., L. R. C. S. I., one of the Medical Officers of the Belfast Dispensary.

ANNE BERRY, aged 60, a widow and mother of five children, states that, twenty-seven years ago she was thrown with violence, her "private parts" coming into contact with a stool, bruising severely the left labium externum. In consequence of the pain and tumefaction which resulted, she applied to a medical man, who advised poulticing, &c., which alleviated the pain and inflammation; but a small tumour about the size of a hazel nut remained. She suffered little uneasiness from this enlargement for a series of years, except during parturition, but within the last twelve months the tumour has increased rapidly without any apparent cause. When requested to visit her on the 1st March, 1852, I found the patient confined to bed, her countenance anxious, but by no means indicative of any organic disease of a malignant character. On examination I discovered a large, heavy, pendulous tumour, pyriform in shape, depending from the left labium, about five inches and a half long, by three and a half in diameter, elastic, not tender when manipulated, and slightly ulcerated at the base from friction against her dress. It was opaque, the surface smooth, with large veins, and the skin moving freely over it. Considering the growth to be a specimen of encysted tumour, I decided on removing it, as it interfered with the woman's power of locomotion, and was causing a great deal of suffering by its weight. On March 3rd, assisted by my colleagues, Surgeon Smith and Dr. Ross, I proceeded to operate. Having placed the patient under the influence of chloroform, and premised two "exploratory punctures," which showed the contents to consist of a viscid atheromatous matter, I made two elliptical incisions around the neck of the cyst, and endeavoured to dissect it carefully out, but whilst doing so the sac was slightly wounded, and immediately there gushed out about a pint of a fluid of an atheromatous character, dark-yellow in colour, and of the consistence of honey; this circumstance in some degree embarrassed the progress of the operation. With a few rapid strokes of the scalpel, however, I removed the mass without wounding any vessel of consequence. When the wound was examined, a small portion of the cyst was found to be prolonged between the mucous membrane of the vagina and the "os pubis" to the extent of about an inch and a half. We decided not to remove this part of the sac, as, in the event of a troublesome hemorrhage ensuing, we should have experienced much difficulty in the application of liga-

tures at such a depth, and pressure would have been inconvenient: one small artery only required to be secured. The wound was left open for a few hours and cold water dressing applied. The patient having been removed to bed, a stimulant antispasmodic draught was exhibited, as she became nervous and agitated when the effects of the chloroform began to disappear. Three hours after the operation I visited her; she was then much calmed by the draught; there was no hemorrhage, and I brought the lips of the incision together by a few points of "interrupted" suture, and in doing so included both edges of the remaining portion of the cyst, in the hope that adhesive inflammation might be set up between its surfaces, and obliteration of its secreting cavity might ensue; cold water dressing was re-applied, and an anodyne draught was ordered to be taken at bed-time. October 4th.—At my visit this morning I found the case doing well. She had some rest, and the edges of the wound were clean and healthy in appearance. Pulse weak, 80; tongue slightly loaded; still nervous and agitated; the antispasmodic draughts to be repeated. 5th.—Simple dressing to be applied; pulse as at last report; bowels confined; to have an ounce of castor-oil. 7th.—The incision much swollen and painful; edges rather foul and glazed; the simple dressing to be omitted, and bread and milk poultices to be applied; bowels open; tongue clean; pulse 80. 8th.—I removed the sutures. She was relieved by the poulticing, and the edges of the wound looked much cleaner and healthier. She was ordered two cathartic pills and a tonic mixture containing quina and dilute sulphuric acid. 10th.—The patient feels much better to-day. I removed the ligature; the edges of the incision clean, adhering, and granulating kindly; the cold infusion and tincture of bark were prescribed in a mixture. She was directed to have the wound dressed with spermaceti ointment, and to be allowed to sit up a few hours each day. From this time the case went on favourably, nothing worthy of note occurring; the wound was almost completely cicatrized on the twentieth day, when I ceased my attendance.

Observations.—The great length of time which elapsed from the receipt of the injury to the full development of the tumour is, I think, remarkable in this case; it is probable that some of the sebaceous follicles, which abound in this region, had been originally ruptured, and a small cyst then formed, which, having remained in abeyance for many years, from some unknown cause suddenly took on a secreting action when the woman had attained an advanced period of life, and rapidly acquired the dimensions above given. Tumours in this situation are comparatively rare. I can find no record of any of an *atheromatous* character having been described. Liston, in the 77th number of the *Edinburgh Medical Journal*, gives an account of a tumour removed from the left labium externum of a female about thirty years of age, which is illustrated by a drawing bearing a considerable resemblance to the tumour which I removed. In Liston's case, the growth was of a totally different

nature, but nearly agreed in its pelvic attachments. He says: "the removal was attended with difficulty, as the cyst extended along the vagina, a distance into the pelvis, and permanent contraction of the 'sphincter vaginæ' remained in consequence of its removal. The tumour weighed 10 lbs. and was of a very dense character, similar to the mammary gland." By not removing the entire cyst, the risk of causing contraction of the sphincter muscle was, in the case I have described, avoided. The cyst on examination seems now to be entirely obliterated, and the parts are nearly normal in appearance. My friend, Dr. Malcolm, kindly made a microscopic examination of the contents of the tumour. His note I append:—"Plates of cholesterine numerous; oil globules; granular matter as groundwork, with divisions: epithelium?"

Case of Ramollissement of the Brain. By J. H. HAIRE, Surgeon, R.N.

A SURGEON in the service of the Peninsular and Oriental Steam Company, aged 35, of a bilious temperament and temperate habits, on the evening of our departure from Hong Kong, on the 23rd of June, 1851, complained of slight headach, with tendency to nausea; his tongue was furred, and his bowels confined; he attributed his indisposition to having drank beer during the previous ten days, whilst living on shore, being unaccustomed to do so when at sea, as he was liable to attacks of dyspepsia. When on shore he had also been a little more exposed to the sun than usual, but he did not consider this an exciting cause. Before he retired to bed, he took some calomel and colocynth, and on the following morning a large dose of senna mixture. At noon, seeing him much depressed, and anxious in manner, I suggested his using an enema, which was shortly after ejected without producing any effect; he then had a drop of croton oil with cathartic extract, which also proved ineffectual until it was repeated. Three hours subsequently, towards evening, the bowels were freely opened, there being copious bilious evacuations; after which he expressed himself as being much relieved, and his restlessness of manner seemed to subside for the time. On visiting him about 10, P.M., he evinced the same degree of nervousness and restlessness as before the bowels had been opened: in fact, he seemed as if labouring under mild delirium tremens, saying that he did not wish to be alone. His native servant remained with him during the night at my suggestion, and he took a pill containing a grain of morphia and three-fourths of a grain of tartar emetic, to be repeated in three hours if he should not sleep.

25th. He took the second pill, but did not sleep; pulse normal, rather feeble; tongue moist and tremulous: ordered to continue the pill every third hour. At noon he dressed himself, read for some time, and seemed more composed: he had some chicken broth and a little sherry. At night the morphia was increased to one and a half grain in each pill, with the same quantity of tartar emetic as before.

26th. He took three pills during the night, yet still complained of want of sleep. Supposing the morphia might be inert from the effects of climate, it was changed for opium, four grains of which, with three-fourths of a grain of tartar emetic, being exhibited during the day, every third hour: he has been sitting up all the afternoon, and read a little; he also sent for his desk, and wrote some memoranda. In the evening he seemed much as usual, but complained that he felt a sensation at either side of the head, as if fluid was rolling about. On inquiry, he said that he did not feel very much headach, although he was bathing his temples with Eau de Cologne; the weather being oppressive might be supposed to have induced him to do so, yet at my earnest request he allowed a blister to be applied to the nape of the neck; the pills were omitted, and he was ordered five grains of calomel and four grains of opium in two pills every third hour.

27th. Passed a sleepless night; as the blisters did not rise, the acetum cantharidis was applied, but the vesication was only partial; he was directed to continue the calomel and opium during the day. Whilst lying in an easy chair this afternoon he slept for five hours and a half.

28th. But little sleep during the night; had the calomel and opium as heretofore; says he feels better, and sat up all the afternoon outside his cabin; seems disinclined to be alone; his temper is irritable, but he regrets any ebullitions of passion when they occur.

29th. At 5, A.M., I was called, when I found him sinking rapidly: pulse scarcely perceptible, skin bathed in a clammy perspiration; stimulants were exhibited without effect, and at 7.30 o'clock he ceased to exist.

On examining the brain, four hours after death, the dura-mater was found to be very much thickened, the arachnoid and pia-mater were partially connected by patches of lymph, the arachnoid presenting an opaque appearance; a considerable quantity of serum was effused beneath it, the surface being covered with small globules of a purulent appearance; on the ventricles being laid open, they were also found filled with serum; the surface of the brain was covered with small globules of pus, its colour was unaltered, but it was soft throughout, almost adhering to the fingers on the slightest pressure. Being an invalid at the time, I was unable to examine the remaining viscera.

Being unacquainted with the habits of this gentleman when I first saw him, I was disposed to look on his symptoms as those of delirium tremens, taking into account his living more freely than usual for the previous ten days. I was subsequently informed by the Captain of the steamer that he had occasionally seen him much depressed, and that he would confine himself to his cabin for a day or two. He had been three years in India, and lived moderately. On arrival in England, I was told by his brother that he had fever about eight years previously, whilst pursuing his studies in London, and that the head was very much affected at the time. It is also worthy

of remark, that on the 26th, when he wrote some memoranda as to the disposal of his effects, in them was found this ominous sentence —“ A voice calls me.” We were unaware of the purport of his writing on this day; the memoranda were found in his desk after his decease. Strange to say, throughout his illness the pupils preserved their normal condition; there was also a total absence of paralysis.

On Rupture of the Funis, in its relation to Legal Medicine. By Dr. J. SPAETH, Assistant to the Imperial Lying-in Hospital, Vienna.

WHEN we consider that the funis is composed merely of two arteries, a vein, some areolar tissue, and a serous investing membrane, not one of which belongs to the stronger animal structures, such, for example, as tendons, and if we moreover reflect, that the vessels alluded to usually run a more or less tortuous course, in consequence of which the extension of the cord does not put all its component parts equally upon the stretch, we shall be led, even *a priori*, to expect, that the force required to rupture the funis must not necessarily be extremely great.

In order to demonstrate this, and to ascertain exactly the force required, I endeavoured to test experimentally the sustaining power of the funis. For this purpose I made use of umbilical cords, not selected, but taken from twenty healthy children, born (in the day-time) at successive births, and I made the trials, in the perfectly recent state, after the removal of the placenta. In order to perform the experiments, I brought one end of such a funis, having first enveloped it in a fold of linen in order to prevent its being cut by the string, in a curve, and tied it to a higher part of the same funis, similarly protected with linen, so as to form a loop. To this loop I then suspended, by means of a soft cotton lace of the thickness of a finger, one of the basons of a pair of scales, which I gradually loaded with pound weights. To let the load work I now seized the other free end of the funis, interposing a cloth so as to prevent its slipping, and raised the weight slowly from the ground. I generally began with a weight of four pounds, including the bason; if the funis did not give way with this, I placed the bason on the ground, added a pound, and repeated this manœuvre until the rent took place.

[The author gives, in a tabular form, the results of twenty experiments, stating the sex of the child, the appearance of the funis, its length, the weight required to rupture it, and the situation in which it gave way. The greatest length was twenty-three inches, the least ten and a half inches. In nine cases the rupture took place in the middle of the cord, in three at the upper extremity, in one close to the lower or fœtal end, in four at three-quarters of an inch,

at one inch and a half, at two, and at three inches, respectively, from the lower end. In one case, in which the vessels were varicose, the cord gave way at the varix; in one which was very varicose, at the most varicose part; and in one in which the vessels were remarkably tortuous, at the point of greatest tortuosity.

As the result, it appears that, of twenty umbilical cords, two gave way with a load of five pounds' weight, three with one of six, one of seven, one of eight, four of eleven, three of twelve, two of thirteen, one of fifteen, two of sixteen, while one required a weight of twenty-three pounds to effect its rupture, the arithmetical mean, that is, the figure representing the weight under which the greatest number gave way, being eleven.

It is interesting to observe, that eleven is also nearly the real arithmetical mean, the result obtained by multiplying each weight by its corresponding number of cases, adding the sums, and dividing by twenty, being 10.95.]

If we now reflect that the ordinary weight of a newly born child amounts to from five to seven pounds, and compare this with the foregoing results, it will appear that, in six out of twenty cases, this weight was in itself sufficient to rupture the cord, while in but four was more than double the weight required to produce the same effect.

The greater or less facility of rupture, probably, to a certain extent depends upon the varying tenacity of the tissues of the cord, since funes, almost identical in appearance, gave way under very different weights; but it appears to be chiefly connected with the arrangement of the umbilical vessels. If these be varicose, or very tortuous, or if they form retrogressive loops, they cannot take their proportionate part in resisting any force to which the funis may be subjected. Thus, for example, the thin funis of a fœtus, at the fifth month, which contained no gelatinous matter, and in which the vessels ran a perfectly straight course, required a weight of eleven pounds for its rupture, while the navel strings of some healthy children, born at the full period, were torn by a weight of five or six pounds. The thickness of the cord is no criterion of its strength, as it depends principally on the amount of the Whartonian gelatine contained in the funis, which evidently can contribute nothing to its tenacity.

If we now apply what has been stated to cases of parturition, in which the full weight of the falling child can tell upon the navel string, as for example in births in the upright position, on the seats of privies, &c., we must take into calculation not only the weight of the child, but also the force with which it is expelled and especially, if the funis be long, the height from which it falls. Any one who has even but once witnessed a birth is aware how powerful the uterine contractions are; and the cases in which I saw the funis ruptured in deliveries of patients lying on the back or side, quoted in my former paper, published in the October and November Num-

bers of this Journal, prove that the contractions of the uterus are occasionally sufficient alone to rend the umbilical cord. If we then add together the three forces alluded to, the proposition will, I trust, not appear too strong,—*that in all cases of parturition, in which the full weight of the falling child can act upon the navel string, the rupture of the latter is, if not probable, at least possible.*

The best confirmation of this statement will, however, be found in the two following cases:—

CASE I.—Johanna S., pregnant for the second time, was seized, on the nights of 21st and 22nd January, 1851, in her dwelling, in the Landstrasse, with labour pains, and, after the latter had continued some time, rose from her bed. While she was doing so the child fell unexpectedly on the floor. An inexperienced woman wrapped it up and brought it, without tying the funis, and without loss of blood, safe with the mother to the Imperial Lying-in Hospital. The funis, which was of the ordinary thickness, was unevenly torn, about five inches from the navel. The child did not suffer the least bad consequence. I did not see the placenta.

CASE II.—Eva D., middle sized, primipara, felt the first pains about four o'clock on the evening of the 29th September, 1851, and about a quarter past nine the same evening walked by a footway of the glacis adjoining the imperial stabling (Stallungen), to the hospital. Suddenly, while the mother was walking erect, the child was expelled during a violent pain and fell on the gravelled walk, without the former perceiving any check upon the navel-string. Her companion took up the child as it was, without tying the funis, wrapped it in an apron, and accompanied the mother on her journey. They had only proceeded a few paces further when the placenta also was expelled, which she likewise took up and brought with her. On their arrival at the Imperial Lying-in Hospital the funis was found to be untied, the apron in which the child had been carried was but very slightly marked with blood, and the child itself appeared lively and vigorous. Its head was covered with gravel, but uninjured. The funis was thirteen inches long, smooth, contained but little gelatinous matter, was free from knots, and was torn off, as if it had been cut, close to its placental insertion, but before the distribution of the vessels. Its circumference, which was everywhere equal, measured thirteen lines, and its tenacity, tested twelve hours subsequently in the manner already described, was fifteen pounds. The naked child weighed five pounds, five and a half ounces. — *Zeitschrift der k. k. Gesellschaft der Aerzte zu Wien*, February, 1852, p. 116.

Mode of Termination of the Nerves in the Skin of the Fingers. By
RUDOLPH WAGNER.

At a recent meeting of the Royal Society of Sciences of Göttingen, the celebrated physiologist, Wagner, stated that he had arrived at

the following novel results, on a careful examination of the nervous distribution in the skin of the extremities of the fingers. What have hitherto been called the papillæ of the sense of touch present two distinct formations; 1st, those which receive only vascular loops (vascular papillæ); and 2ndly, the nervous papillæ interposed among the former. The nervous papillæ have a conical form, and each incloses a minute body which is also conical. This corpuscle is placed in the papillæ like a kernel in its envelope, and in it the minute ramifications of the nervous filaments terminate. Each primitive nervous filament divides into a great number of small branches, to the end of which the corpuscles (*corpuscula tactus*) are attached. The type of the distribution of the nerves is in general the same as obtains in the muscular system. Each minute nervous filament governs, so to speak, a certain number of sentient papillæ, the aggregate of which correspond to a single point in the brain and spinal marrow; they produce only a simple impression of sensibility, whether they be touched singly or collectively. In fine, there exists a very curious numerical relation between the vascular and nervous papillæ of the different parts of the fingers and of the surface of the hand.—*Gazette Médicale de Paris*, 6th March, 1852, p. 152.

On Flexion of Limbs as a Means of arresting Arterial Hemorrhage.
By DR. BOBILLIER, of Dunkirk.

IN the case of wounds of those arteries which are situated in the flexures of limbs, the hemorrhage may be suspended and even finally arrested by powerfully bending the injured limb. In a case in which the radial artery was wounded where it passes between the first two metacarpal bones in order to enter the palm of the hand and form the deep palmar arch, I succeeded in arresting the hemorrhage by flexing the thumb and keeping it fixed in the palm of the hand. In a second case, in which the radial artery was wounded above the wrist, exactly in the situation in which the pulse is generally felt, I found it sufficient to maintain permanent flexion of the hand upon the fore-arm. On another occasion a butcher had pierced the fold of his arm with the point of a knife; the brachial artery was wounded, and a frightful jet of blood issued from it; no thread was to be had in the place where the accident occurred, and I was without the instruments necessary to take up the artery, but by powerful and sustained flexion of the fore-arm on the arm, I succeeded in permanently arresting the hemorrhage. I believe that we may frequently avail ourselves of this simple method of arresting arterial hemorrhages, but I do not pretend to say that it will succeed in all cases, or that it affords the necessary degree of security. I am aware that it cannot be compared with the ligature, the latter alone possesses certainty. I merely state what I have done, and only propose the adoption of a flexed position of limbs on sudden emergencies, as in the country, or at night, when the appliances necessary for ligature are not at hand.

[In an editorial note to the foregoing paper, M. Malgaigne observes, that he himself was the first to point out, in 1834^a, a certain means of arresting the hemorrhage in cases in which the brachial artery had been wounded in the operation of venesection, by strongly flexing the fore-arm. Subsequently, in 1838, he proposed in like manner to arrest the flow of blood from the popliteal artery by flexion of the knee; and he states that many surgeons have borne testimony to the simplicity and efficacy of this expedient^b. M. Bobillier, he adds, who appears not to have seen these precedents, cannot therefore claim priority in reference to the plan spoken of; but his observations tend to prove that the flexion of limbs may be applied to a much greater number of arteries; and in this point of view it has the merit both of great interest and of unquestionable novelty.]
—*Revue Médico-Chirurgicale de Paris*, Jan. 1852, p. 56.

On the Use of Iodine Injections. By Dr. SPENGLER, of Herborn.

AFTER iodine injections had been previously employed in various forms of dropsy, Dieulafoi, of Toulouse, conceived the bold idea of using them for the radical cure of ascites. The subject of the first experiment which he tried was a painter, aged 42, of cachectic habit of body, and extremely weakened by constant diarrhœa of two years' standing: ascites had suddenly set in after the suppression of the diarrhœa. The remedies employed both before and after paracentesis, which had been four times performed, were ineffectual. After the fifth operation, the patient being extremely depressed, a solution of rather more than an ounce of tincture of iodine and a drachm of hydriodate of potash in five ounces of water was injected, the mixture being, at the moment of injection, still further diluted with water. The fluid was diffused through the abdomen by means of the pressure of the hand, and its diffusion was accompanied by an agreeable feeling of warmth in the part. In a short time the patient was laid on his side, whereupon about half the fluid flowed out of the canula. In the evening febrile re-action and slight abdominal pain set in, but were soon relieved by mercurial frictions and poulticing. Ten days afterwards, the paracentesis and iodine injection were repeated; the abdominal enlargement was diminished about one-half, the obliterated portion being the lower region on the left side, consequently the quantity of the contained fluid which escaped through the puncture did not amount to more than half what it had been before the injection. In two months' interval the paracentesis and injection were again repeated; the enlargement had now become roundly circumscribed, and contained little more than five pints of fluid. The symptoms were the same after every repetition of the operation. Eight days after the last iodine injec-

^a Manuel de Médecine Opératoire, First Edition, p. 78.

^b See his Journal de Chirurgie, vol. iv. p. 120.

tion the abdominal cavity was apparently quite obliterated. General anasarca now came on, which was, however, removed by the exhibition of purgatives, and the patient recovered completely, the only inconvenience he experienced being a slight dragging sensation in the abdomen on raising himself from stooping to the erect position. Dieulafoi subsequently repeated the injection of iodine into the abdominal cavity in another patient without any bad consequence; but of this case we have no accurate report*.

I am not aware whether the operation just described was tried in other cases and crowned with similar success, or whether unfavourable results have prevented further publication on the subject. And yet it is precisely from unsuccessful cases that we often learn more, than from those of the casuist who communicates only brilliant histories of almost miraculous cures. I have myself employed iodine injection into the peritoneal cavity in but a single case of ascites. The case was that of a girl, aged 21, whose illness commenced in the middle of June, 1850. On the 9th September, paracentesis of the abdomen was performed, but after about three quarts of fluid had been removed, the canula became obstructed, and all efforts to obtain a further flow were unsuccessful. [It was evidently ovarian dropsy.] The diminution of the abdominal tension, however, now permitted a more accurate examination of the state of the viscera, and from various circumstances which are detailed at length, the author diagnosed fatty infiltration of the liver and spleen as the cause of the ascites!

The operation of tapping was repeated on the 7th October, and sixteen or eighteen pints of fluid were drawn off, and after the latter ceased to flow through the canula, a mixture of one drachm of iodide of potassium, three grains of iodine, and three drachms of distilled water was injected into the cavity of the abdomen. This was followed by violent pain and faintness. During eighteen days every movement in the abdomen, which was hard and tense, was attended with considerable pain. At the end of that time the abdomen began again to swell, the feet became very much distended, and the organs of generation in particular were greatly oedematous. The patient was remarkably anemic; her emaciation rapidly progressed; she had a considerable degree of fever, but the appetite continued tolerably good. The skin was somewhat jaundiced. About the 20th of October, the oedema of the feet and genitals had become enormous, and the parietes of the abdomen appeared to be on the point of giving way. On the 23rd, tapping was had recourse to for the third time, and was followed by the injection of two and a half drachms of iodide of potassium and six grains of iodine dissolved in four ounces of water. On this occasion upwards of thirty pounds of fluid were drawn off. Violent pains and faintness followed the injection. The attacks of pain lasted much longer than they had

* Bulletin de l'Académie Royale de Médecine, Jan. 6, 13, 20, & 27, 1846.

done before, and a very high degree of fever was present. The urine passed three hours after the operation contained a large amount of iodine. On the second and third days iodine was still present in the urine; on the eighth, no trace of it could be detected. At the end of a fortnight the œdema of the legs and genitals had again attained its height, and the swelling of the abdomen was recommencing, when the integuments of the legs gave way, and so much fluid escaped that at the end of November the abdomen was quite collapsed, and the hepatic and splenic callosities were plainly discernible. The patient had for some time been taking the syrup of iodide of iron. The emaciation, however, still progressed, and a profuse serous diarrhœa hastened the fatal result, which took place on the 10th December. Autopsy was not permitted.

Even in the earlier ages of medicine it had been attempted to inject stimulating fluids, vapours or gases (according to Roosbroeck, nitrous oxide gas), after paracentesis, through the canula into the cavity of the abdomen, in order by these means to excite adhesive inflammation, and to destroy the secreting surfaces. Thus it is stated that in two cases cures were obtained by causing the vapour of spirit to flow in. On this subject Canstatt remarks: "Even if some few experiments can be quoted which may be considered to prove that the desired object can be attained, the facts bearing on the point are still so few and uncertain, the danger of peritonitis following such injections so great, that the proposal at the present day has more historic than practical value." But neither in Dieulafoi's case nor in that which I have just related, was the inflammation produced by the iodine injection so great as to give rise to danger. And if it be the dread of extensive and dangerous peritoneal inflammation which has hitherto withheld practitioners from such attempts, both cases go to prove that such a result is not very much to be dreaded. In one case certainly the iodine injections were inefficacious, the dropsy progressed, and ended fatally. But even although this case has afforded no favourable result, yet taken along with the preceding it proves that iodine injections may safely be thrown into the abdominal cavity; and since many cases of cure by exciting inflammation, or, more correctly, by destroying secreting surfaces, are on record, we should be justified in instituting further experiments.

Moreover, I find in the *Union Médicale* for 1850, Nos. 17-19, three cases communicated by Leriche, in which ascites was perfectly cured by means of iodine injections. His formula is one ounce of tincture of iodine, one drachm of iodide of potassium, and eight ounces of water. He recommends that as much as possible of the dropsical fluid shall be drawn off, and that very shortly after throwing in the injection, the greater portion of it be allowed to escape. No inconvenience was felt immediately after the operation; but on the second or third day violent abdominal pains set in, which in a short time again disappeared. The patients were completely

restored to health in about three weeks, and in no case was any relapse observed even at the end of two years.

2. *In Hydrocele*.—It would be unnecessary to relate a single case to prove or confirm the efficacy of iodine injections in hydrocele, for hundreds of cures by this method are on record. [The author, however, thinks it well to detail a case in which the iodine injection effected a perfect cure after other modes of treatment had been unsuccessfully tried. The case was that of a scrofulous boy, ten years old, in whom hydrocele of the left side had gradually formed. He was first placed under the care of a physician in Anspruch, and treated by frictions, with stimulating applications so severe as frequently to remove the skin and produce most violent pain. Deriving no benefit from this plan, a second practitioner was called in, who punctured the scrotum, drew off the fluid, and injected red wine. The swelling, however, returning in as great a degree as before, the operation was, after an interval of many months, repeated. This too proving unsuccessful, the author was consulted. He insisted on the so-called radical operation of removing the tunica vaginalis. In August, 1849, this operation was performed under chloroform. A large portion of the tunica vaginalis was removed from either side, and a serous cyst, of the size of a hazel nut, which was firmly attached to the testicle, was cut off with a pair of scissors. The wound healed in the ordinary mode by suppuration, in a fortnight. Nevertheless, in the course of the winter the swelling re-appeared, and although inunctions of iodide of mercury and of iodide of potassium were immediately employed and diligently persevered in for six weeks, the scrotum was in February fully as large as it had been before the operation. On the 11th April, 1850, the patient was placed under the influence of chloroform, the scrotum punctured with a fine trocar, and after the contents had been evacuated, as much as possible of the following solution was introduced and brought into contact with every part of the scrotum by agitation and kneading:—iodide, of potassium, two drachms, iodine, one drachm, distilled water, four drachms. After the lapse of about five minutes the solution was allowed to escape. Soon after, the boy awoke without having experienced the slightest pain. The further progress of the case was exactly as described by Pitha; very considerable inflammatory swelling lasting for five days. By confinement to bed, and the use of a suspensory bandage, with ordinary nourishing diet and beer, he was on the ninth day after operation so far recovered as to admit of his removal home, a distance of five or six miles. There the swelling gradually disappeared, his general health improved, and now, at the end of fifteen months, he is in tolerable health, and the hydrocele completely cured.]

This case is particularly interesting from the fact of the so called radical operation by excision having been employed and followed by a relapse which only yielded permanently to the iodine injection; the injections of red wine also proved totally inefficacious as did the external remedies which, although in different degrees, were twice

employed. Hence we can no longer with justice designate the operation of excising portions of the tunica vaginalis "the radical operation;" this title now belongs solely to the treatment with iodine injections. Formerly the tincture of iodine was, and is even still, employed as the fluid to be injected, but the solution of ioduretted iodide of potassium is at all events much more to be depended on than the tincture, because the iodine of the latter is apt to become deposited on the canula. In what mode the injections act in these cases is not as yet ascertained. Whether they merely excite a violent inflammation terminating in adhesion and obliteration, or whether they not alone cause the death of the most superficial layer of membrane, as the application of iodine does of the cuticle, but also alter the morbid action, is still an open question. At all events it appears to me, that it is not merely by exciting adhesive inflammation that iodine acts so admirably; for adhesive inflammation is likewise produced by excision, the injection of caustics, such as solution of nitrate of silver, caustic potash, &c., and yet these means have afforded no permanent result. The morbid secreting action is the principal cause of the mischief, and it is the alterative action of the iodine which here particularly comes into account, the more deeply penetrating property, which is not, as with caustics, limited to the surface. When, for example, ever so much is removed by excision, a portion, even though it be very small, of the morbidly secreting tunica vaginalis, may be left behind, and continue its previous action; and by this means the collection of fluid will necessarily become as great as it was before. In my opinion adhesive inflammation is not indispensable to cure; it is mainly the alteration of the entire tunica vaginalis, produced by the deeply penetrating effect of the iodine, which, by arresting the morbid secretion, produces the cure. The observations of Chaumet, of Bourdeaux, support this view, for he states^a that many hydroceles heal without obliteration of the tunica vaginalis, which is moreover the termination to be desired. This method, besides the greater certainty of success, possesses the important advantage of being unattended with dangerous consequences, such as, especially in excision, are ordinarily observed. The pain of the iodine injection may be prevented by the use of chloroform. Excision has been called the most rational mode of removing hydrocele, but besides the case just now detailed, I remember assisting a friend and colleague in an operation for double hydrocele, in which a relapse of both hydroceles took place within six months, although very large portions of the tunica vaginalis had been removed, and copious suppuration had been long kept up.

This case appears to me to afford an important exemplification of the efficacy of the various modes of treatment of hydrocele, and to give a key to the decision of the question of the comparative suita-

^a *Compte rendu de la Clinique Chirurgicale de l'Hôpital Saint André à Bourdeaux, 1849.*

bility of each method. From it the iodine injection would appear to be greatly preferable to all other plans hitherto employed. It is evident that, in the case I have related, the spirit was not the active agent, as has been asserted of tincture of iodine, for I did not employ a spirituous preparation. But even should a healing property belong to spirit of wine employed as an injection in hydrocele, it is well known that in diseases of the testicle it is inefficacious, while iodine exerts the most useful influence on the diseased organ.

I have quite recently had another opportunity of employing iodine injections in a patient affected with hydrocele, and since this case also presents some peculiarities which tend to prove and confirm the efficacy of this remedy, I shall relate it.

[The case alluded to is one of a young lithographer who had from childhood a hydrocele of the left side, which came on without any assignable cause. It was tapped before the boy had attained the age of six years, but rapidly regained its former magnitude, and remained undiminished until after his marriage. In the course of last year it suddenly increased, attaining the size of the closed hand, and the author was applied to for advice. The situation of the testicle could not be ascertained. As the testicle usually occupies the postero-superior part of such a tumour, the author, in consultation with his colleague who assisted him in the operation, selected the middle of the inferior portion of the swelling. In making the puncture he experienced a tolerably firm resistance. The entire of the fluid, which was perfectly clear, was drawn off, and it then became evident that the trocar had perforated the testicle, and that the latter was impaled upon the canula, nevertheless, the above-mentioned solution of iodine was injected and allowed to remain in the sac for upwards of five minutes. The operation was performed under chloroform, and no pain was felt. After the iodine solution, which had been thrown in in quantity sufficient to restore the former bulk of the tumour, was allowed to escape, the scrotum was not more than its normal size. Next day, however, it was swollen and as large as it had been before the operation, the skin was red, the swelling very hard and painful. The patient experienced a painful dragging sensation along the spermatic cord and in the upper part of the left thigh. There was no trace of iodine in the urine. The swelling continued unaltered for three weeks, and was accompanied by violent fever, great thirst, loss of appetite, and constipation. Calomel was administered. In the course of the fourth week, as the tumour showed no tendency to abate, the scrotum was gently strapped, and iodine with iodide of potassium given internally. The swelling now rapidly diminished. At the end of a week the patient was able to leave his bed, and by wearing a suspensory bandage felt no uneasiness. After another week the tumour was only as large as a small hen's egg; instead of being strapped, the entire scrotum was now covered with a layer of collodion, under which plan the swelling became much smaller, so that the patient felt quite well and able to attend to his business, and it was evident that the slight enlarge-

ment which still remained would entirely disappear, and that therefore the operation had been, in the true sense of the word, a radical cure.]

The most important point in the foregoing operation was the unfortunate accident of the testicle having been transfixed by the trocar. A traumatic orchitis ensued; yet even on this the iodine injection had no injurious effect, but on the contrary the inflammation tolerably quickly terminated in resolution, although from the great tendency of traumatic orchitis to end in suppuration, the latter result might almost with certainty have been expected.

3. *In indolent (kalten) abscesses.*—The multiplicity of plans which have been proposed for the treatment of indolent abscesses affords a proof either that several different affections have been comprehended under the term, or that no mode of treatment has as yet been devised exactly suitable to the disease. More recently, indolent, or, as they are called, “cold” abscesses, have been distinguished from other abscesses, namely, the abscesses of congestion; and the Parisian surgeons in particular have carried on lengthened discussions on the subject of their treatment. Nevertheless, no distinct conclusion has as yet been arrived at. The following case has afforded me an opportunity of employing the various modes of treatment, and as in the cases comprised under the two preceding heads, the treatment by iodine injection would here also appear to be the most advisable.

[The author concludes his paper by relating the case, which is one of a poor widow, aged 60, in whom a large tumour had slowly formed in the right buttock. At the end of nearly two years it had attained the size of the closed hand, and had become quite soft. During the exertion of making her bed the tumour gave way and discharged about eight ounces of pus. The discharge became thinner, more sanious, and more copious, the edges of the opening became flaccid, and the abscess showed a complete want of vital or healthy action; the patient was extremely reduced by the profuse discharge, and suffered from loss of appetite, evening exacerbations of fever, and watery diarrhœa. Warm poultices were employed, with the internal exhibition of quina and opium. Notwithstanding this treatment, the discharge became more profuse, and the patient still weaker. The author now tried ergot of rye internally as recommended by Brown*, supposing that this remedy, which possesses the power of closing the mouths of the capillary vessels of the uterus and the secreting orifices of those of the vagina in leucorrhœa, might have the same effect on those of the sac of the abscess. It was given in powder combined with quina, but it proved useless. The septic condition became still more decided, the discharge more copious, and the patient's strength daily gave way. Local stimulants were next had recourse to. The solution recommended by Cappeletti, who prefers nitrate of silver to all other ordinary means^b,

* *Lancet*, May, 1850.

^b *Il Filiale Sebezio*, May, 1842.

consisting of twenty grains of this salt in four ounces of water, with one drachm of tincture of opium, was injected, each injection occasioning violent pain. At the end of a week, during which time the proportion of the nitrate in the injection had been gradually increased, the discharge continued as ichorous as before, and was attended with the same disgusting odour, and the size of the abscess was undiminished. The patient was supported by quina, wine, and nourishing diet. At length, in the middle of August, 1850, two months after the bursting of the abscess, iodine was used, according to Lugol's formula: one scruple of iodine and two scruples of iodide of potassium being dissolved in four ounces of distilled water; and a portion of this solution was injected every day, causing the most violent pain. But the discharge soon improved in quality and diminished in quantity, the cavity of the abscess became smaller, and in the commencement of September had closed, its situation being only pointed out by a contracted, slightly oozing surface, of the size of a silver kreutzer. This was now dressed with zinc ointment, and rapidly healed. The patient's health was perfectly good, but it was thought advisable to continue a tonic plan of treatment for some time longer.]—*Vierteljahrsschrift für die praktische Heilkunde, Prag.* 1852. *Band. Originalaufsätze*, p. 159.

[Ascites can very seldom be considered essentially as a disease in itself, being almost invariably a symptom, and generally of some organic affection of the liver or spleen, or of some other internal organ. Even suppose the treatment recommended so strongly by Dr. Spengler were well calculated to cure the ascites, it is to be recollected that the disease upon which the dropsy depends is still to be overcome. The effusion may be a symptom of chronic peritonitis, and in such a case it may be asked, should the treatment by injection be employed? The author does not speak of the distention of the abdomen by the fluid contained in a very large ovarian tumour, although we are inclined to think that his case was one of this nature,—and the treatment of such a disease by the evacuation of the cyst by an operation and the injection of a stimulating fluid; and yet such appears to us to be the only case in which the most heroic practitioner in these countries would think fit to venture on the employment of the plan recommended. The acute ascites that comes on from the effects of cold, or after scarlatina, cannot be contemplated by any one as the subject of such experiments as those alluded to by the author, much less can any of these operations be thought prudent where the ascites is the result of cardiac disease. On the whole, therefore, we do not think that in any instance the treatment of ascites by injection can be prudently adopted, but we wished to make our readers acquainted with the author's views on the subject.]

Dr. Spengler's observations upon hydrocele require but little comment; the treatment first proposed by Sir James Earle, of the injection of port wine and water, has amply succeeded in the hands of British surgeons in effecting the radical cure of hydrocele, and whe-

ther that by iodine injection, used extensively by Velpeau and others, be really preferable, still remains to be proved.

In the author's observations upon chronic abscesses, he seems as little precise as he has been in his remarks upon the treatment of ascites; he has not, as fully as he should have done, first laid down that there are two forms of chronic abscesses—one consisting of a complete isolated cyst, which has no connexion with any diseased bone, and which may be treated successfully either by free incision or by exciting inflammation of the interior of the cyst by the injection of tincture of iodine or any other irritating fluid; and this is the only form of chronic abscess in which he has exemplified the treatment he recommends, while of the other form of chronic abscess symptomatic of some diseased portion of bone, in general deeply situated, he has not given any example; for such a case as this, we presume, he recommends the treatment by injection, yet is it to be expected that any such plan will here prove successful? If, for example, a true psoas abscess be evacuated, and its cyst injected with a stimulating fluid, we cannot expect either to cure the psoas abscess or the caries of the vertebræ upon which it depends. The author, in so superficially dealing with such important diseases, and suggesting such bold innovations in their surgical treatment, does not seem to us to have sufficiently felt the responsibility that must attach to the publication of opinions from so high a medical authority.—Ed.]

Special Pharmacopœia for Diseases of the Skin. By ALPHEE CAZENAVE, M. D., Physician to the Hôpital St. Louis, Paris.

(Continued from p. 256.)

ANTIMONY.—Sulphuret of antimony has been extensively employed in the form of powder, pills, and lozenges. It constitutes the basis of a great number of officinal preparations formerly highly esteemed, the majority of which are now, however, obsolete. It is given in doses to the extent of one or two drachms daily.

Kunkel's Antimonial Lozenges.—Sweet almonds, two drachms; sugar, thirteen drachms; cardamom seeds in powder, one drachm; powdered cinnamon, half-a-drachm; levigated sulphuret of antimony, one drachm; gum tragacanth, fifteen grains; mix and form lozenges, each weighing fifteen grains, and consequently containing about one grain and a half of the sulphuret. These lozenges have been used in chronic cutaneous affections. *Stibiated Pills.*—Crude antimony, extract of dulcamara, equal parts, beat into a mass, to be divided into pills, each containing one grain and a half, of which from five to ten may be given in diseases of the skin three times a day. *Bouchardat's Antimonial Pills.*—Levigated sulphuret of antimony, ten drachms; cinnamon powder, four scruples; conserve of roses, as much as may be sufficient; make into boluses of six grains each. From two to four may be taken daily in squamous diseases. *Jasser's Detergent Powder.*—Crude antimony, sublimed sulphur, puri-

fied nitre, orris root, of each five grains: to be reduced to an impalpable powder, and taken morning and evening in half-a-glass of eau sucrée. This powder is prescribed in impetiginous affections, and its use should be continued for a long time. Latterly, however, the golden or deuto-sulphuret of antimony has been more frequently used in the treatment of chronic affections of the skin; it is much employed in England and in Germany, and is one of the ingredients of Plummer's powder, a well-known and extensively prescribed preparation. *Plummer's Alterative Powder*.—Calomel and golden sulphuret of antimony, of each fifteen grains. The ingredients should not be mixed until the moment of administration. The dose is from three to six grains daily.

SILVER.—M. Serres, of Montpellier, proposed in 1838 the use of the salts of silver in syphilis, and at the same time published the favourable results of his experience. They have since been used, among others by M. Payan, who has confirmed the efficacy of this class of remedies, chiefly in those cases in which mercurial treatment is inadmissible, or in which it has failed. I have on a previous occasion stated*, that from a series of experiments very carefully conducted in conjunction with Biett, we had drawn conclusions entirely at variance with the foregoing. We tried the oxide, chloride, cyanide, and phosphate of silver, beginning with the fifth of a grain, half-a-grain, and even upwards of a grain daily, and increasing the dose to an amount much greater than had before been tried. M. Ricord also has made experiments, the results of which have likewise been completely negative.

The preparations of silver are at present very little used internally, either in syphilis or in scrofulous diseases of the skin (lupus) for the treatment of which they have been proposed. The following is M. Payan's formula: chloride of silver, three-fourths of a grain; powdered orris root, one grain and a half; mix and divide into twelve equal portions. Frictions on the tongue with a portion continued for a quarter of an hour daily. In addition, a pill in the evening, containing the twelfth of a grain of oxide of silver. At the end of a few days M. Payan gives two pills instead of one. *Pills of Iodide of Silver*.—Iodide of silver, three grains; conserve of roses, as much as may be sufficient to form twenty pills, of which from one to five may be given as a dose in syphilitic affections and in lupus. Iodide of silver is not attended with the disadvantage of giving to the skin the leaden tint observed after the use of the nitrate(?) *Pills of Iodide of Silver*.—Nitrate of silver, fifteen grains; iodide of potassium, half-a-drachm; starch, forty-five grains, gum arabic, fifteen grains; water, as much as may be sufficient to form a mass, which is to be divided into 100 pills, to be rolled in silver leaf (Mialhe). The uses and dose of these are the same as of the preceding preparation.

But it is chiefly externally that the preparations of silver, and almost exclusively the nitrate, are resorted to in the treatment of syphilis and of diseases of the skin. The latter is the abortive remedy

* See *Annales des Maladies de la Peau*, tom. ii. pp. 29, 49.

proposed in variola, herpes, &c. It is the agent ordinarily employed in cauterization, to stimulate chronically ulcerated surfaces, to arrest the progress of a spreading erysipelas, &c., or to check a blennorrhagic or leucorrhœal discharge. It is well known that Alibert has frequently had recourse to it to allay pruritus, and in the treatment of a great number of cutaneous affections; a plan the inconveniences of which I have often pointed out*. *Solution of Nitrate of Silver*.—Nitrate of silver, four grains; distilled water, one ounce. To be applied with a feather to modify the discharging surfaces of a chronic eczema or impetigo.

Pomade of Nitrate of Silver.—Nitrate of silver, from fifteen grains to one drachm; lard, one ounce; mix;—to be applied as an ointment in erysipelas. *Pomade of iodide of silver*.—Iodide of silver, nine grains; lard, one ounce; mix;—in syphilitic and scrofulous enlargements. *Pomade of cyanide of silver*.—Cyanide of silver, nine grains; lard, one ounce; mix;—as a dressing in syphilitic ulcerations. The two latter pomades have been proposed to fulfil the indications for which iodide of potassium or mercurial preparations are had recourse to; but as it has by no means been proved that they possess analogous efficacy, they are generally little employed. *Injections of nitrate of silver*.—Nitrate of silver, three-fourths of a grain; distilled water, four ounces;—as an injection in blennorrhagia, the proportion of the nitrate being gradually increased. *Caustic injection* (Ricord).—Nitrate of silver, four scruples; distilled water, one ounce;—to be used cautiously as an abortive injection. *Cosmetics of nitrate of silver*.—Nitrate of silver, lastly, constitutes the basis of the majority of the preparations, and of the more or less celebrated dyes, which have been extolled for their efficacy in changing the colour of hair to black. For this purpose it is employed in washes, as a paste, in the liquid form, &c. All of them, which are not always without some inconvenience, are most frequently difficult of application and uncertain in their effects. The following are three of the most simple selected from a vast number. Nitrate of silver, one drachm; distilled water, one ounce; raw sugar, sufficient to colour the solution; it is to be applied by means of a fine comb dipped in the solution, care being taken to avoid touching the skin. Nitrate of silver, cream of tartar, of each, two drachms; weak liquor of ammonia, half-an-ounce; lard, half-an-ounce, mix. This pomade is to be applied to the hair by means of a comb or of a brush. Nitrate of silver, proto-nitrate of mercury, of each, half-an-ounce; distilled water, four ounces,—dissolve, filter, and wash the filter with distilled water, sufficient to increase the solution to five and a half ounces. A clear paste is to be made by mixing this solution with a sufficient quantity of starch. The hair is to be smeared with it at night, and covered with oiled silk; the next morning the paste is to be washed off, and any greasy substance applied in its stead.—*Annales des Maladies de la Peau et de la Syphilis*, tom. iv., 1852.

* Ib. omt. i. p. 353.