

In a day or two he was about as usual until the next attack, having in all three severe attacks and dying in the third.

Necropsy.—Left lung weighed 170 grams, was small, atrophied and the seat of a low grade of inflammation; its pleural cavity was obliterated by adhesion. Right lung weighed 250 grams, congested, some adhesions of pleural surfaces. Heart weighed 310 grams, valves normal. The sinuses of Valsalva were incrustated with calcareous nodules, the aorta dilated at its origin to double the normal size and gradually increased to the beginning of the transverse portion of the arch where the expansion was much greater and formed the beginning of a large fusiform aneurism which extended from this point to the lower border of the seventh dorsal vertebra, including the left sides of the bodies of five vertebrae with the heads and necks of the corresponding ribs. The posterior wall of the sac was formed by the exposed bone from the third to the seventh vertebra inclusive. The bodies of all were more or less eroded and the heads and necks of the fourth and fifth ribs had been completely absorbed. The spinal canal was intact. The walls of the sac were thick and firm with deposits of organized clots in places interspersed with plaques of carcareous material. The edges were firmly adherent to the vertebrae and there was no rupture. Capacity of the sac about fifteen hundred cubic centimeters, nearly filled with loose antemortem clots. There was evident pressure on the left vagus nerve.

Case 2.—G. C., aged 57 years, native of the United States, was admitted to the marine ward of the German Hospital, Philadelphia, July 15, 1895; died July 19, four days later. Patient stated that he had been suffering from asthma (according to his physicians) for nine months constantly, though at times he was better. On examination there was orthopnea, prolonged expiration, wheezing, râles all over chest, respiration weaker in right lung, and occasional cough. Circulation and heart sounds apparently normal, though the examination was not satisfactory owing to the râles and dyspnea. Aneurism was diagnosed as probable, chiefly on account of the persistent dyspnea and the feeble respiration in the right lung. Tracheal tugging was not sought. Of various remedies tried morphia afforded most relief, but the dyspnea continued and the patient died from exhaustion.

Necropsy.—Heart hypertrophied, especially the left ventricle; atheroma of the base of the aortic valves though the valves were competent. The aorta was dilated and from its arch, anteriorly, between the origin of the arteria innominata and left common carotid, arose a saccular aneurism, capacity about four hundred cubic centimeters, filled with a hard, laminated, grayish clot. The edges of the sac were attached in front to the posterior surface of the manubrium between the first and second ribs, the bone being eaten through on the right side, but forming scarcely a perceptible bulge in front. The lumen of the aortic arch seemed little, if at all, encroached on, the tumor pressing especially on the arteria innominata, the right bronchus and right pneumogastric nerve. There was no rupture of the sac and death must have been caused by pressure on the vagus nerve.

Case 3 has not yet come to a necropsy. J. B., aged 48 years, native of Maine, a tall, 6 foot 3 inch, powerful-looking man, was admitted to the marine ward of the German Hospital, Philadelphia, Sept. 18, 1895. History: Family history good; admits gonorrhea, denies syphilis; had "rheumatism" in 1866, but no fever nor swelling of the joints; has had slight cough with expectoration of mucus for three years. For the past eight months says he has suffered from "asthma" which is worse by spells and generally worse on lying down. Three months ago he was taken with pain in the right shoulder, right side of the neck and left knee. Examination: Breathing high pitched over both lungs. Numerous râles, coarse and fine, over both lungs, especially at end of inspiration. A diastolic murmur was heard over the upper part of the sternum, but no thrill nor pulsation could be felt and there was no pain nor swelling. Hard, dry, high-pitched, metallic cough at intervals of half hour or hour, night and day. No inequality of the pupils, but he states that the right side of his face sweats more than the left. A distinct though slight tracheal tugging is perceptible with each heart pulsation.

The diagnosis was aneurism of the arch of the aorta. October 17, patient asked attention to a swelling behind his left knee which he first noticed three months ago. There was some pain at first but lately he has felt only weakness in the leg.

An aneurism as large as a pigeon's egg was detected in the popliteal space. By an oversight his leg had not been examined before.

October 26, pulsation can now be felt over the right sterno-clavicular articulation and there is unmistakable bulging on this side, thus removing all doubt, if there were any left, as to the correctness of the diagnosis.

The patient was put on the Valsalva-Tufuelli treatment but could not stand it and was allowed to get up. The operation of ligation of the subclavian and carotid arteries was explained to him but did not meet his approval and he was discharged at his own request. Nov. 4, 1895, not improved.

PURULENT OPHTHALMIA.

Prepared for the Mitchell District Medical Society of Indiana.
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Purulent conjunctivitis should have a degree of significance to the physician according to the character of the infection and the age of the patient. While there are many varying degrees of intensity, for clinical purposes, it is best to recognize but two causes; the gonorrheal and the endemic.

The gonorrheal is most malignant and intractable; it seldom occurs in both eyes simultaneously. It is most common in adults, and is the result of contagion. The endemic is equally contagious and differs in its clinical features from the gonorrheal type in degree of severity and extent of invasion. In gonorrheal inflammation, the cocci not only attack the mucous corpuscles and surface epithelium, but penetrate quickly into the mucous follicles, which become greatly distended, causing such interruption in the circulation of the blood in the capillary coils surrounding the follicles that great edema is quickly set up, producing a degree of swelling of the ocular conjunctiva often quite sufficient to very nearly overlap the entire cornea, giving to its vertex a decidedly umbilicated appearance.

These phenomena are never seen in the endemic form, which depends upon the presence of one or the other of two varieties of staphylococci. The disease in its earliest stages, presents a golden yellow colored pus, or a cream colored stringy muco-pus. In the gonorrheal infection there are always extensive abrasions of the surface in the lining of the lids. In the endemic type this never occurs, and while there are in reality two distinct forms of staphylococci which produce purulent conjunctivitis, one of them stringy, the other golden yellow, there is little difference in degree of severity and in the clinical course of the inflammation. In the new-born, the endemic is the most common type of purulent inflammation, and it is vastly more dangerous to the cornea, than in adults. It is extremely doubtful if any case of gonorrheal conjunctivitis ever resulted from maternal infection in the course of natural delivery. In the first place, as is well known, the skin of the fetus is everywhere covered with the vernix caseosa, the eyes being closed. After the birth of the child, when the eyes are opened, the lash lifts away all external matter, and its arrangement along the free borders of the lids is such as to constitute a practically impassable barrier for any matter that might be lodged upon the skin, even if it be of a fluid nature. When the nurse undertakes the removal of the cheesy coating from the skin, the eyes are frequently inoculated with whatever matter may be on the rag or sponge. Staphylococci are nearly constantly present about the finger nails and sponges handled by untidy persons; and simple muco purulent vaginitis, with which the mother or nurse may be suffering, constitutes a vastly more common source of inoculating

the eyes of the infant through the carelessness or ignorance of the nurse than any possible gonorrheal state of the maternal passages.

Did you ever think for a moment, those of you who have seen gonorrhea in the female, how it almost invariably provokes miscarriage, or abortion; and, how, if it exists prior to pregnancy, it makes that condition impossible during the existence of the infectious inflammation? It is extremely rare that a pregnant woman, in the advanced stages of gestation, contracts gonorrhea, and yet this would appear to be the only class of cases in which gonorrheal ophthalmia neonati might be possible from maternal infection. Credé concluded that purulent ophthalmia neonatorum might always be prevented by having the new-born subjected to an instillation of a 2 per cent. solution of nitrate of silver into each eye. In the attempt to carry out this suggestion, the eyes of many are infected which might otherwise escape. Under strictly antiseptic rules, Credé's method might possess some virtue, but with the always to be desired and ordinarily aseptic conditions, all interference with the eyes is unnecessary, and even meddling. In the obstetric wards of a general hospital, the most abundant evidence of the faults of this system, owing it may be to the imperfect methods of those in charge, have been clearly apparent. Since the attempt to employ Credé's method, but few children born in that hospital have escaped purulent ophthalmia, a disease comparatively unknown there prior to the attempt to introduce this system. The best protection for the eyes of the new-born in public institutes where asepsis is easily maintained should be complete non-interference. Where sepsis may reasonably be feared, the nurse who takes charge of the infant should be an entirely different person from that one who takes charge of the mother. The only proper course to pursue, in such dangerous conditions, is to insure complete isolation until after all those preliminary stages relating to the cleansing and dressing of the infant have been completed. If the nurse in charge of the infected mother is permitted to touch the eye of the infant, experience shows that infection of the eyes will be almost inevitable. Neither Credé's solution, nor any other chemie agent may prevent disaster. I have known an interne within ten minutes after delivery, seize the infant and, separating its eyelids with his fingers, order the silver solution instilled by the nurse; next day purulent ophthalmia appeared. The mother was not then infected, but had two days later well characterized puerperal fever. The interne had examined an infected woman before delivery. In other cases, the child's face and neck are washed and wiped off with a rag, which is subsequently folded upon the nurses finger and employed to remove adhering particles of vernix from the vicinity of the inner canthus, the same process being repeated at subsequent ablutions. In due time they are inflamed, and the maternal passages are accused. I am convinced that, if physicians and nurses generally, as is the custom in private practice, could be taught the danger of attempting to touch the eyes, much more good would be accomplished than it would be possible to secure by the use of any kind of chemie antiseptic agent. The aseptic rule in this field is just as precious as in any department of surgery, and the attainment of antiseptic principles just as difficult and uncertain.

As to the treatment of the varying forms and

stages of purulent conjunctivitis, it seems to me necessary that something should be said. It has been too long the custom to seek chemie antidotes for specific types of inflammation, and to regard all the purulent forms of conjunctivitis as the old-fashioned doctors did similar processes in the male urethra. It was long the custom to treat such cases with active caustic applications, and powerful astringents. Experience must have convinced any ordinary observer that these methods of practice are not only dangerous, but rarely curative. The most successful treatment of gonorrhea in the male is through the medium of the circulation, and not by local injections; and where these are practiced in the advanced stages, they are of a far milder character than were formerly employed. The same rule applies to the treatment of gonorrheal inflammation in all mucous membranes, whether it be the conjunctiva, the vagina, or the urethra. The object being to keep accumulating matters constantly washed away, and to so sterilize the surfaces as to retard the activity of the growth of the ferment, and, in this way, the earlier stages of the disease are held in such control as to prevent deep seated invasion, and consequent necrosis of the cornea. In the more advanced stages of the infection such stimulating agents as do not impair the vitality of the young epithelial cells may be employed. Astringents are, however, never to be used here. In the first stages of gonorrheal infection, bichlorid of mercury in the proportion of one-sixteenth of a grain to the ounce of water containing ten grains of chlorid of sodium, may be freely used with the irrigator every ten minutes, until there is manifest abatement of the discharge, when the interval may be gradually prolonged until finally, when no more pus is formed, it may be discontinued altogether. In the virulent gonorrheal types of inflammation, Jeanel's emulsion of copaiba may be instilled every four hours with great advantage. To illustrate this treatment, permit me to recite the case of C. L., aged 19: He came from the country with gonorrheal ophthalmia of four days standing; the cornea in the right eye had already sloughed, leaving the iris exposed in the central portion; a small part of the superior pupillary margin being still protected by an overlapping edge of the posterior elastic layer of the cornea, led me to employ sulphate of atropin solution in the attempt to dilate and thereby retract this part of the iris from the vicinity of the perforation. The cornea throughout all the remaining portion was so infiltrated and opaque as to make it impossible to see the iris. In the left eye, the cornea presented a gray, cream color, the surface epithelium being thoroughly infiltrated and abraded in small areas. The urethral discharge was very profuse, as well as the discharge of pus from the conjunctiva. I gave him five minims of balsam copaiba, in a capsule, every three hours, and two drachms of Rochelle salts, in one pint of water every morning. He was directed to have his eyes irrigated every ten minutes with the following:

R. Bichlorid of mercury	gr. viii	48
Chlorid of sodium	3 iii	90
Distilled water	cong. i	3840
Sulphate of atropin	gr. ii	12

He used, as a collyrium, every four hours, the following:

R. Jeanel's emulsion of copaiba . . .	3 ii	60
Distilled water	5vi	24

Two weeks after admission to the hospital he returned home, able to read with the left eye, and to count fingers across the room with the right. This result could not have been attained by any very widely different plan of treatment.

ILEUS.

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Mechanic ileus.—In the diagnosis of internal strangulation, no matter from what cause, we have exactly the same symptoms as in strangulated hernia, except the physical signs are different. The symptoms of internal strangulation are as follows: Pain in the abdomen which comes on suddenly, gradually increasing in intensity for the first half hour, followed by nausea and vomiting, and inability to produce bowel movement. If the strangulation be severe, there is an increase in the frequency of the pulse (but as a rule in the early stage the pulse is not accelerated), *absence of temperature*, absence of tenderness. As the case advances, if the strangulated coil be large, it can be recognized through a moderately thin abdominal wall by its distension; the coil of the intestine leading to it may also be recognized by a circumscribed elevation of the abdominal wall. In twenty-four hours all of these symptoms will have increased in severity. The distention of the coil is greater, the abdomen is more tympanitic, sensitiveness at the seat of obstruction is now manifest, and the increased resistance of the occluded coil may be felt. If the coil be small, the increased resistance of the intestine on the proximal side of the occlusion may be felt and a circumscribed dullness be outlined. This varies with position, depending upon the portion of the intestine involved in the strangulation, as shown in the von Zoege-Manteuffel plates. *Peristalsis is very greatly increased and is most pronounced in the neighborhood of the obstruction.* This increase in peristalsis continues until peritonitis sets in, when it entirely disappears. If the strangulation be sufficient to produce gangrene the depression will be more marked, but the local manifestations unchanged. *Opiates paralyze peristalsis for hours and therefore should never be given in acute intestinal lesions as they obscure the symptoms and signs of the pathologic process.*

The following cases are good illustrations of internal intestinal strangulation:

Mr. C., aged 37 years, robust, had always enjoyed excellent health. Six days before admission to the hospital was attacked with pain in the abdomen, moderately severe, followed by nausea, persistent vomiting, and inability to produce bowel movement. The symptoms continued notwithstanding intestinal irrigation and frequent doses of cathartics. When admitted the pulse was 100; temperature 99 degrees, and it had not exceeded that at any time since the onset. Expression good; abdomen very tympanitic, greatest distention being just above the umbilicus. Increased resistance in neighborhood of umbilicus; abdomen slightly sensitive. Diagnosis intestinal obstruction. Laparotomy. A loop of bowel was found twisted around a Littre diverticulum attached to the umbilicus, evidently congenital. The coil was distended, cyanotic, surface glistening but not gangrenous. There was no peritonitis. The diverticulum was ligated, excised and invaginated, the coil liberated; circulation became reestablished, and the abdomen closed. Time occupied in the operation twenty-five

minutes. The patient's pulse increased in rapidity, the vomiting subsided, the bowels moved freely, nevertheless, he died nine hours after the operation. Post-mortem showed no peritonitis; strangulated portion of the intestine congested but not perforated; mucous membrane ecchymotic; small veins thrombosed.

What was the cause of death? It was certainly not the strangulation, nor peritonitis, but auto-infection either from absorption of the decomposed proteids that began rapidly after the liberation of the obstruction, or an auto-infection through the thrombosed intestinal veins, more likely the former, as we have exactly the same results where the gangrenous intestine and infected veins have been resected.

Case of internal strangulation in a sub-peritoneal pocket at left internal inguinal opening;

Mr. C., age 22 years; printer. On the morning of October 25, when lifting a heavy case, "felt something give way" in the left inguinal region. The pain became so severe he was compelled to stop work and go to bed. Six hours after the onset vomiting began and continued at frequent intervals up to the time of operation. Impossibility to produce bowel movement. I saw him three days after the onset of symptoms. *Status presens:* Face sunken, eyes prominent, anxious, depressed expression; pulse 90, temperature 98.8 degrees; breathing somewhat labored. Abdomen tympanitic, most prominent in lower left portion; resonance irregular; sensitive over left inguinal ring; a slight induration could be felt above and to the left of the internal ring. The inguinal canal was free, the finger could be passed through it. Peristalsis was greatly increased; rectal examination negative. The patient located the difficulty in the left inguinal region.

Diagnosis: Internal mechanic ileus. Section; median incision; passed the hand down to left internal ring, found the coil bound fast at the ring. Exposed the parts and found a peritoneal pocket extending upward and to the left subperitoneal, *i. e.*, between the parietal peritoneum and the muscular fascia. Incised the constricting ring and opened pocket; bowel in good condition; not resected. Peritoneal sac removed and opening sutured. Abdomen closed. Rapid recovery.

* Case of strangulated diaphragmatic hernia. Referred to me by Dr. Richard Haley:

J. H. M., age 31 years; single. Admitted to Mercy Hospital July 15, 1895. The patient, a well-developed, muscular brakeman in excellent physical condition, states that he has had repeated attacks of abdominal pain and vomiting with inability to produce bowel movement in the last six years, usually lasting from ten to twelve hours; had never had a severe injury. The pain was always located in left hypochondrium. Present attack began six days ago with the usual symptoms, slight pain in left hypochondrium; vomiting, not excessive, biliary in character; no passage from bowels of gas nor feces from that time. *Status presens:* Patient's expression good; pulse 86, temperature 98.7 degrees; breathing somewhat labored; abdomen very much distended. Borborygmus so marked that it could be heard in any part of the room; pain not severe; tenderness most marked in left hypochondrium, but nowhere excessive; auscultation revealed increased peristalsis, most marked in right hypochondrium, but present in all portions of abdomen; percussion elicited areas of dullness over lower half of abdomen, largest to right and below umbilicus; they were outlined with ink on the surface of the abdomen and changed position while being transferred to the hospital where he was re-examined. The transverse and ascending colon could be outlined by inspection and percussion. They were greatly distended. Section; median incision; small quantity of serum escaped. The sigmoid flexure found contracted and empty; followed it up to large bowel and the latter to splenic flexure, which could not be drawn into the field. Small intestine was very much distended with fluid feces. The colon ascendens and transverse enormously distended with gas, but contained no feces. The greater portion of the bowel had to be turned out to allow access to the obstructed splenic flexure of the colon. A careful examination showed the cause of the obstruction to be a strangulated diaphragmatic hernia; the opening was situated two inches from the ribs and about the junction of the posterior with the middle third of left leaflet; it was most difficult to reach. Traction failed to move the strangulated portion. With the greatest difficulty the tip of the finger was inserted under the edge of the ring, which was divided on the finger with scissors. The intestine was liberated and examined; the circulation was rapidly restored; no