27th.—The ulcer, covered by a thick, buff-coloured slough, has attained the size of a crown-piece; pulse very feeble. Two grains of sulphate of quinine, three times a day; six ounces of wine, instead of the porter; continue nitric acid and opium lotion; yeast poultice.

Jan. 2nd.—The ulcer, surrounded by the livid red zone, is considerably larger; a second deep slough has made its appearance in the cleft between the little and the ring fingers; the pain has become excessive. The strong nitric acid was freely applied over the whole surface of the sore; forty minims of tincture of opium immediately.

3rd.—The sloughing process has ceased; the patient, free from pain, has passed a good night.

9th.—The sloughs, which have involved the extensor tendons of the little and ring fingers, have separated, leaving a healthy, but acutely sensitive granulating surface.

Dislocation of the Little Finger, followed by Inflammation and Suppuration of the Hand; Abscess opened; Hospital Gangrene of the Wound.

CASE 6.—The particulars of this case so closely resemble those of Case 5, that a brief description will suffice.

Benjamin B—, aged forty, a healthy-looking man, of temperate habits, was admitted into Kenton ward, Dec. 12th, 1846, with abscess of the back of the hand, consequent upon a dislocation of the little finger, which had been reduced some time previous. Abscess opened.

Dec. 21st.—The patient complained of a sharp, burning sensation in the wound, which assumed the appearance of a sloughing, phagedænic sore, precisely similar to that described in Case 5. Pulse accelerated and very feeble. The lotion, composed of fifteen minims of nitric acid, in a weak solution of opium, was applied upon lint, under a bread-and-water poultice, to the sore. He took quinine wine or porter; opium at night-time.

Jan. 1st.—The sloughing action ceased; the mortified parts, about equal in size to those described in Case 5, involve the tendons of the little and ring fingers; separation is taking place, and a healthy granulating surface appears underneath.

Hospital Gangrene, consequent upon the Puncture of an Abscess over the Hip.

CASE 7.—John G—, aged sixty-two, a pallid, but strongly-built man, who for some time had been exposed to great privations, was admitted into Darker ward, under Mr. Stanley, with an abscess over the right trochanter. Upon an opening being made, there escaped a considerable quantity of thick pus, mixed with some shreds of cellular tissue. A poultice was applied, proper diet was allowed him, and in the course of twelve or fourteen days the wound was nearly closed.

Jan. 2nd.—He complains of severe burning pain in the part. Upon examination, it was found that the integuments in the neighbourhood of the wound were of a dusky-red colour.

3rd.—The opening, which had been nearly closed, is now converted into an extremely painful ulcer, the size of a five-shilling piece, with phagedænic edges, and a buff-coloured slough upon the surface. The house-surgeon applied the undiluted nitric acid to the whole surface of the sore.

4th.—The patient has passed a good night, and is quite free from pain. Bread-and-water poultice.

6th.—The undiluted acid was again applied to a suspicious part of the sore.

12th.—The slough is beginning to separate; there is a healthy granulating surface underneath.

Abscess of the Nates, evacuated by Puncture; Hospital Gangrene of the Wound nearly three weeks afterwards.

CASE 8.—A. B—, a healthy young man, was admitted, under Mr. Stanley, into Bentley ward, Nov. 26th, 1846, with abscess in the perinæum, consequent upon gonorrhœa. Ten days afterwards, there formed by the side of the anus a large collection of matter, which was evacuated by a free incision. A poultice was applied, but the cavity had always an unhealthy look, and showed no disposition to contract.

Dec. 26th.—The edges of the wound and the surface of the abscess began to slough, and the patient complained of burning pain, so severe as to deprive him of rest; the pulse was feeble, but the appetite was unimpaired. Two grains of quinine three times a day; opium at night; opium lotion, one pint; nitric acid, fifteen minims, to be applied on lint to the sore; meat diet.

27th.—The abscess is converted into a large irregular cavity

in the nates, and is covered by a buff-coloured slough of considerable thickness. Continue as before.

Jan. 2nd.—The sloughing process has stopped; healthy granulations are springing from the surface of the sore.

Amputation of the Thigh for Disease of the Knee-joint; slight attack of Hospital Gangrene of the Stump two months afterwards.

CASE 9.—Thomas P—, aged forty-four, had the right thigh amputated, about two months ago, by Mr. Stanley. Received into Bentley ward Jan. 6th, 1847. The stump, which had almost healed, became extremely painful without apparent cause; and on the following day, a small granulating surface, the size of a shilling, was covered by a layer of soft, fawn-coloured, disorganized matter.

Jan. 8th.—The ulcer, covered with an ash-coloured slough, and surrounded by a dusky-red ring, is as large as a half-crown, and extends down to the bone. Opium at night. Opium lotion, with nitric acid, applied, upon lint, under a bread-and-water poultice, to the sore.

After a week the slough separated, and the wound healed favourably.

Abscess over the Inner Ankle evacuated by Puncture; Hospital Gangrene of the Wound.

CASE 10.—William D—, aged twenty-two; a pale, unhealthy looking man, was admitted, under Mr. Stanley, into Bentley ward, on the 3rd of September, 1846, with large chronic abscess on the upper part of the back. The matter was evacuated by puncture, and the opening subsequently closed. In the beginning of November he complained of dull pain over the right inner ankle. Three weeks afterwards, an abscess was detected and opened.

December 26th.—The opening, which had nearly closed, is larger; the surface is covered by a fawn-coloured secretion, or slough; the parts around are swelled, of dusky red colour, and painful; pulse quick and feeble; appetite not impaired.

28th.—The ulcer, surrounded by a dusky-red zone, has attained the size of a crown-piece; the surface is covered by a moist dark-brown-coloured slough; the edges are sharp, everted, and phagedænic; acute burning pain extends from the sore up the entire limb to the groin; the discharge is sanious and foetid; pulse quick, small, and thready; he has severe headache, and cannot sleep at night; appetite unimpaired. Five grains of soap and opium pill night and morning. A pint opium lotion, with thirty minims of nitric acid, to be applied upon lint, under a poultice, to the sore; wine, six ounces daily.

30th.—The sore is increasing in size, and very painful. Meat diet; wine, eight ounces daily; continue as before; one drachm of nitric acid to the pint of opium lotion to be applied to the sore; continue as before.

31st.—The lotion causing considerable pain, the quantity of nitric acid was reduced to twenty minims to the pint.

Jan. 3rd.—The slough has separated, leaving a perfectly healthy granulating surface.

Original Papers.

CASE OF CONGENITAL DEFICIENCY OF THE GALL- BLADDER.

WITH OBSERVATIONS.

By EDWIN CANTON, F.R.C.S.E.,
DEMONSTRATOR OF ANATOMY AT THE CHARING-CROSS HOSPITAL
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IN examining the abdomen of a female, aged sixty-five, who had died in St. Martin's Workhouse, from disease of the brain, I noticed that the portions of intestine usually stained by bile, in its transudation, were untinged by that fluid; and on subsequently raising the liver, found the circumstance accounted for, by an absence of the gall-bladder from its usual situation; a shallow groove for it, however, was present, lined by peritonæum.

Suspecting malposition, I searched for this viscus, or its remains, in the neighbourhood, but without success; and on subsequently making thin slices of the liver in its whole extent, was convinced that the case was one of congenital deficiency of the gall-bladder.

The liver was only two-thirds of its natural size, and

healthy in structure. Nothing abnormal was seen in the other viscera. The right and left hepatic ducts were of their wonted length and ordinary diameter, uniting together at an obtuse angle just below the transverse fissure, to form a ductus choledochus, which was thus, by inclusion of the common hepatic duct, a longer canal than usual, whose relations were natural, but it was possessed of a calibre nearly twice as large as under ordinary circumstances. The lining membrane of this trunk presented the appearance characteristic of the mucous wall of the gall-bladder. The cystic artery, vein, and nerves, were wanting.

In the case related, the ductus choledochus must have formed the reservoir for the bile which is being continually secreted; and the small size of the liver would show, perhaps, that there was no greater amount of this fluid eliminated than the canal would conveniently contain. An interesting point is, a consideration of the mode in which the duct was induced, as it were, or forced, to part with its contents. When the gall-bladder is present, it is ordinarily believed that the abdominal muscles, in their contraction, so press upon it as to evacuate the bile, and that the expulsion is aided by the distention of the stomach and duodenum. In the present instance, of course, such offices were uncalled for, the bile having simply to be discharged from the ducts, which would be accomplished by the presence of chyme, in the duodenum, inciting their muscular coat to peristaltic action, at the same time that the orifice of the canal would be rendered patulous by the coincident movements of the gut. It is curious to remark, that in the lower animals we often find that the gall-bladder is naturally wanting—e. g., amongst mammalia, in the camel, goat, and deer; amongst fishes, in the lamprey, and certain species of perch; and amongst birds, in the psittacidae, cuculidae, and columbidae. "There seems to be," says Müller, "no general law for its presence or absence, although the species in which it is wanting are for the most part herbivorous, and are animals in which digestion is constantly going on; yet very many vegetable feeders are provided with a gall-bladder." Congenital deficiency of this diverticulum from the gall ducts, in the human subject, is not often met with, and some authors even disbelieve in the peculiarity ever occurring; whereas, there are a few who have distinctly recorded the details of such cases; whilst, on the other hand, there are others who have mistaken obliteration of the cavity, and atrophy of the walls, for original absence of the gall-bladder.

It sometimes happens, that when extensive disease of the liver is present, the gall-bladder, participating in the mischief, becomes so incorporated with the substance of that organ as at first view to seem absent; even on section of the liver, its presence is not readily detected, and such cases have been published as congenital deficiencies of the gall-bladder.

When, however, there are calculi contained in this reservoir, in connexion with a disease involving it, the real nature of the preparation is found to be more evident. This is well illustrated in a case, detailed by Mr. Howship, of fungoid disease of the liver:—"The tumour occupied the seat of the gall-bladder, which appeared to be altogether wanting. The tumour was not suspected to be the gall-bladder, until a careful section, carried through its middle, exposed a hard central nucleus, a gall-stone, the size of a chestnut,—surrounded by flocculent masses of fibrino-albuminous matter, involving many smaller calculi of angular form, all imbedded in the central part of the substance of the disease."

When the gall-bladder contains a small calculus, around which it is firmly contracted, the cystic duct becomes obliterated, and eventually converted into a fibrous cord, whilst the characteristic appearance of the inner coat of the gall-bladder is lost; and this, together with the slight remains and altered condition of the duct, might lead to the belief, that the calculus was impacted in a distinct cyst; an examination, however, of the artery, vein, and nerves of the part, would tend to solve any doubt which might arise on the subject. Cruveilhier says, "The gall-bladder and the cystic duct are not indispensable to the elimination of the bile. Nothing is more common than to find the excretory apparatus of the liver, in old subjects, reduced to the hepatic ducts and ductus choledochus." When an example is met with of an absence of the gall-bladder, we should, I think, expect to find, that the biliary ducts would be dilated, and form thereby a compensatory reservoir for the bile, as is found to be the case in the horse. Fyfe, however, remarks, that "in the equus quagga, an animal lately introduced into this country from the Cape, though the gall-bladder is wanting, there is no dilatation of the hepatic duct." This increased capacity has been noticed in the human subject by Targioni-Tozzetti, Littre, Sæmmering,

Jaeger, Vergne, and Boulet. The latter author describes a case in which the duct formed a kind of funnel, with its expanded portion near the liver, containing a small quantity of bile. In other examples spoken of, an enlargement of the canal is not noticed.

I believe, that where instances occur of an absent gall-bladder, it is not uncommon to observe that there are other congenital deficiencies which are incompatible with the continuance of life, and it is on such score that many specimens of this rare peculiarity have been noticed in the foetal state—e. g., in acephalous and anencephalous children. "In a preparation now before me," says Mr. E. Wilson, "of the liver of a foetus at the full period, which lived several hours after birth, and which presented in its anatomical structure several peculiarities dependent upon arrest of development, the most careful examination has failed to discover the slightest indication of a gall-bladder."

The museum of the Royal College of Surgeons contains, in sub-series, four organs of digestion—"No. 134. The liver of a human foetus, with deficiency of the gall-bladder and hepatic duct; a portion of the duodenum is left attached, to show that it is connected with that viscus by bloodvessels only." (Hunterian.)

This specimen may probably be the one spoken of by Sir E. Home, in the subjoined passage from the *Philosophical Transactions* for the year 1813. "A child was born at the full time, of the usual size, and lived for several months, but never appeared to increase in size, although it fed heartily, had regular stools, and the skin was of a dark, yellowish-brown. I saw the child while it was alive, and was struck with the want of growth, and it having no fat under the skin, which made it appear longer than new-born children generally are. Upon examining the body after death, the only malformation met with was there being no gall-bladder, nor any duct leading from the liver to the duodenum." No. 135 of the same collection is also a foetal liver, and, according to the catalogue, with the gall-bladder wanting. It was presented by Mr. A. White. This specimen I believe to be simply a case of imperfectly-developed gall-bladder, for the fibrous mass which represents it has in two places been laid open, and a kind of linear groove is shown, which it is probable is a trace of the cavity of the malformed viscus. A contraction may be gradually induced by any circumstance preventing the passage of bile through the cystic duct—e. g., an abscess or tumour of the liver, which, in its encroachments, might press upon and obliterate that tube; or its closure might be accomplished by an enlargement of, or any abnormal growth from, a neighbouring part; though, as Dr. Hope remarks, "the affection is frequently unconnected with any manifest cause." Another mode by which the gall-bladder, or rather its cavity, might become obliterated, is this: when a large calculus is impacted within, and completely occupies it, the further ingress of bile being prevented, the now useless cystic duct (as I have two or three times observed) has become reduced to a slight, impervious cord, and if in such a case the concretion had made its way into the adjacent intestine, a gradual closure and obliteration of the sac it had left would, it is not improbable, ensue, inasmuch as there now remains no channel to supply it with contents.

No specimen should be set down as one of congenital deficiency of the gall-bladder until careful sections of the liver have been made, in order to ascertain whether or not it be situated in the substance of the latter viscus, either in a perfect, contracted, or condensed state; or, in other words, still occupying the position it holds in the early periods of intra-uterine life. Again, the condition of the cystic duct should be noted; and its presence even in the modified state referred to would justify the inference that the gall-bladder had at some period been present, although perhaps imperfectly developed, and, from inadequate capability to the performance of its office, had become, by degrees, reduced to the fibrous bundle we find it. And, lastly, I believe the atrophied vessels and nerves would tend to corroborate other testimony of the presence originally of a gall-bladder. It may be here remarked, that the cystic branches of the hepatic artery may exist, although the gall-bladder is congenitally absent, as in a case examined by Littre, where they passed into the substance of the liver. The rarity of the case under consideration is well shown by the annexed kind communication from Mr. Kiernan:—"I have never met with a case of congenital deficiency of the gall-bladder, but have seen several cases in which it had been supposed to be absent. In these cases, a more careful examination satisfied me that the cavity had been obliterated, that the bladder had been reduced to a condensed mass of cellular tissue, and the duct to a thin cord."

Dr. Baillie says,—“It has never occurred to me to see an example of this kind; but one can the more readily believe that it may sometimes happen, as the gall-bladder does not serve any necessary purpose in the body.” Meckel states that—“Notwithstanding its primitive narrowness, the gall-bladder is never deficient at any period, according to our observations, as one would be led to believe from some cases where its total absence has been asserted.” The above remark, however, is little in accordance with the subjoined, from the same author, in his description of the biliary passages:—“Sometimes, but rarely, a part of the biliary passages, particularly the gall-bladder, is deficient from a primitive deviation of formation, although this anomaly does not necessarily exercise an injurious influence on the health, which is less astonishing, since, according to the experiments of Herlin, the gall-bladder may be extirpated in cats without inconvenience, and is normally absent in many animals.” Boulet once examined a case analogous to that I have described, and subsequently in the son of the subject found the like deficiency.

St. Martin's-lane, Sept. 1847.

DETAILS OF A CASE OF ABDOMINAL TUMOUR SIMULATING PREGNANCY.

By JOHN CHALLICE, Esq., Bermondsey.

On the morning of the 12th of August, 1846, a messenger came to me, breathless, saying that her mistress's daughter was dangerously ill with the cholera, and that I must come directly. On my way, the maidservant dropped several hints, at first rather obscure, afterwards of a less doubtful character. “She hoped it was nothing worse than the cholera;” and persons who had their living to get “could see, although they daren't say nothing. These innuendoes, conveyed in a tone and manner not to be mistaken, led me to the conclusion, that on my arrival I should find the patient in the pangs of parturition. When I arrived, I saw a young female in bed, lying on her right side, with her face buried in the pillow, and the knees drawn up towards the abdomen. She seemed to be in pain, but was sullen, and refused to answer any questions. The mother told me that she had been vomiting, and complaining of pains in the loins, with a constant desire to pass water, and that for the last five or six months she had observed a change in her daughter—the appetite capricious, temper irritable, and on several occasions she had been surprised in tears; notwithstanding, she denied being ill, and continued to perform her domestic duties. These facts seemed confirmatory of the servant's suspicions, and with almost a conviction in my mind of the condition of the girl, I placed my hand upon the abdomen: it was tense and swollen, and a movement like that of a living foetus was distinctly felt; I then listened and detected a loud and quick pulsation.

The presence of these symptoms induced me to pronounce the patient pregnant. No suspicion had entered the mother's mind: she was an only daughter, and bore an excellent character. However, she did not deny the fact, but after a distressing burst of grief, and a pitiable appeal for forgiveness, she confessed that her “Cousin John had had connexion with her once, and only once, about six months before, a few days previous to his departure from England. Being unwilling to aggravate the sufferings I then witnessed, by what appeared unnecessary inquiries, or to disturb the patient by further and more careful examination, considering the case quite decisive, I contented myself with prescribing some simple remedy for relieving the sickness and pain. The next day there was a great improvement in the condition of the patient; the fear of discovery no longer agitated her, and she had been forgiven. Up to this period she had so contrived to compress her figure, that no increase in her bulk was perceptible when dressed, although her size was quite that of the sixth month of gestation when undressed. Now that this cruel mental and physical restraint no longer tormented her, she suffered less from pain and sickness, became less sullen, and more communicative.

It appears that the connexion took place, after prolonged resistance, just previous to the usual period of menstruation; that up to that time there had never been the least irregularity of this function during the three years she had menstruated.

She was greatly alarmed at the absence of the accustomed appearances at the usual time, and did not feel well in health, although she had no marked symptoms; a general sense of uneasiness, with pains in the loins, and an occasional slight feeling of sickness and loss of appetite, were felt. When the next period came round, she was pleased at finding herself “unwell,” but only to about half the usual extent; menstua-

tion had continued regularly up to the time I saw her; on each occasion, however, more and more scantily. The abdomen had gone on gradually increasing in bulk, and about five months after the connexion the patient was conscious of a movement and pulsation in the abdomen, and believed herself pregnant. The breasts were small, and marked with an indistinct areola; around the eyes and mouth there were dark circles, and her mother says she is much fallen away in flesh. Previous to this unfortunate occurrence, the patient not only enjoyed good health, but was remarkable for strength, endurance, and activity, inclined to *enbonpoint*, full of life and spirits, and in her nineteenth year.

During the next month or six weeks, I saw the patient occasionally. She complained of no urgent symptom, walked out now and then, had a good appetite and digestion, with sometimes slight irritability of the bladder, and irregularity of the bowels. The gradual increase in size still went on, and the mother (who now slept with her daughter) said that the movement of the child continued. The patient complained of its violence when in bed, and also began to suffer from lumbar pains, and constant irritation of the labia, which was much increased when she drank beer, wine, or spirits. And so the case went on.

When the ninth calendar month had nearly expired since the connexion, I became much interested in the case, thinking it one in which the period of gestation could be accurately ascertained.

On the evening of the expiration of the ninth month, I received the expected message, with an urgent request to hasten, as very strong labour had come on. When I arrived, the patient was standing at the foot of the bed, grasping the bed-post, and evidently suffering from pain, although not of a violent character. There was an interval of about ten minutes in the pains, during which she walked about the room, having a very anxious and haggard look.

After a good deal of persuasion, she consented to an examination per vaginam, which seemed to cause excessive pain, as she screamed violently, and exclaimed that she was being murdered. At the time, I thought the patient hysterical, but was much surprised at the narrow constricted condition of the vagina, and the presence of the hymen nearly perfect; the agony, however, produced by the examination seemed so intolerable, that the patient, by a sudden and violent effort, threw herself from me, declaring that I should torment her no more.

Finding that the pains were weak and ineffectual, and at longer intervals, and feeling assured, from the condition of the parts, that immediate labour was not at hand, I gave twenty minims of opium, and left, directing a full dose of castor oil to be given in a few hours. During the night she slept well; the oil acted freely in the morning; and the next day passed over without pain or any inconvenience, the patient having a good appetite, and being in better spirits. About eleven o'clock at night the pains returned with increased violence, and I found her straining and bearing-down at the bed-post. An old-experienced nurse declared “that the pains were quite strong enough, with assistance, to bring the child into the world.” The mother states, that during the night she had placed her hand on her daughter's stomach, and felt the child move vigorously.

In the intervals of pain, the patient walked about the room, and was cheerful, except expressing what seemed an unreasonable horror at any examination. The pains commenced in the abdomen, and then extended round to the loins, came on regularly every ten or fifteen minutes, and were marked with all the characteristics of labour in its first stage.

The extreme excitement and dread which the patient evinced when the necessity for an examination was impressed upon her, induced me to waive it, although I was anxious to ascertain the real condition of affairs. It would be useless to detail the diurnal symptoms—suffice it, that a week passed over, and matters remained apparently without alteration, either one way or the other. I may here state, that menstruation did not take place at this period. Doubts now first began to arise in my mind about the nature of the case, and when nine calendar months from the departure of her cousin had expired, I became very anxious about it. It was at this stage that Dr. Lever was consulted. After a careful and thorough external and internal examination, this gentleman, justly famous for his skill and tact in diagnosis, having the history of the case before him, came to the conclusion that it was “extra-uterine impregnation.” At that time her physical condition was as follows:—Countenance pale—an anxious expression; eyes rather sunken; nose pinched; breasts some