CASE
OF
OBSTRUCTION

IN THE
LARGE INTESTINES,

OCCASIONED BY
A BILIARY CALCULUS OF EXTRAORDINARY SIZE.

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Read January 31, 1815.

THE relation of the following case may be considered interesting to the Society, as it seems to point out the great uncertainty practitioners occasionally labour under in forming a correct diagnosis in cases of ileus. It will also tend to illustrate in a very extraordinary degree, the dilatable properties of the ductus choledochus communis, without being productive of any material pain in the parts immediately concerned, or any disturbance to the system at large.—On Sunday night, Nov. 20, I was called to Mrs. P, aged 63, labouring under the usual symptoms of obstructed bowels. She

had been previously attended by Dr. Bain, who had already prescribed some aperient medicine, and a purgative enema; these means not having produced the desired effect, and finding she had long been afflicted with an irreducible umbilical hernia, he directed surgical aid to be called in. At this time there was considerable tension of the whole abdomen, accompanied with pain upon pressure, more particularly felt on the left side a little above the ilium; the stomach had been extremely irritable from the commencement of the attack, but since the morning the nausea and vomiting were almost incessant; the matter ejected was in considerable quantity, and consisted principally of bile of a deep orange colour; the pulse was small and frequent; the countenance expressed great distress, and the surface of the body was universally bedewed with a cold clammy perspiration. She complained of a constant thirst, yet the tongue was moist, and free from mucus; no fæcal evacuation had taken place since Thursday, on which day she had several dark coloured copious stools, of a loose consistence, accompanied by considerable tenesmus and griping.

The hernia presented a tumour of a pyramidal shape, somewhat flattened at the apex, and of the bulk of a moderate sized melon; it was not so painful to the touch as the other parts of the abdominal parietes, and from the tenuity of the integuments the contents were readily ascertained

to consist of both omentum and intestine, in many parts firmly adherent to the inner surface of the sac. The hernia had never been reduced since its first formation, which took place suddenly fourteen years before, upon a violent effort in attempting to raise a heavy weight from the ground ; there had been no perceptible increase in the size of the tumour till within the last two years, when the habit generally had become more full and corpulent in consequence of her taking less bodily exercise than what she had formerly been accustomed to. Being fully convinced that there was no possible chance of effecting a complete reduction of the contents of the hernia, and the symptoms leading me to suppose that the obstruction to the free passage of the *fæces* resided in the sac, I had no hesitation in proposing the usual operation for the liberation of the incarcerated parts ; but as neither the mind of the patient, nor of the surrounding friends, were prepared for its immediate performance, it was deferred to an early hour on the following morning ; in the mean time she was directed to take a bolus with *hydargyr. submur. gr. x*, to have an opiate glyster, and a fomentation of vinegar and brandy to be applied as warm as could be borne to the whole surface of the abdomen, and to be allowed occasionally a spoonful or two of cold water. The next morning I found she had passed the night in much more comfort than she had experienced the preceding day ; the vomiting had ceased ; the skin was warm and comfortably moist ;

the thirst by no means urgent; the pulse quieter, and in every other respect she was more composed. Thus circumstanced the patient was left till the evening; the fomentation was directed to be repeated, and an emollient injection given. At ten o'clock on Monday night she appeared in every respect much relieved, suffering but little beyond the uneasiness arising from the distension of the abdomen, with a somewhat greater degree of tenderness still existing on the left side; neither fæces nor flatus had yet escaped by the anus, but the straining and tenesmus had in great measure subsided; on attending to the tumour I thought it more flaccid and yielding than on the first examination, and could for the first time indistinctly perceive a gurgling motion within, conveying an impression to the touch very dissimilar to that usually felt in strangulated hernia: thus situated, I held myself warranted in deferring the operation till some more decided change took place. The calomel bolus was repeated, and an enema with soap, was directed to be administered immediately, and in four hours repeated. The night was passed in much perturbation and distress, chiefly owing to the involuntary contractions of the abdominal muscles in their ineffectual efforts to expel the contents of the intestinal canal. About nine o'clock in the morning her torments seemed to increase with redoubled violence, when an evacuation suddenly took place, preceded by an extraordinary noise as if some solid body had been

forcibly projected from the anus; the fæces were in considerable quantities, liquid, and of a dark colour; she experienced immediate ease, and all the symptoms denoting general irritation speedily vanished. Upon the removal of the soiled linen from the bed, a hard substance, of a considerable size, was discovered in the fæces, which upon a superficial examination appeared to possess the properties common to biliary concretions; this notion was fully confirmed by the subjoined analysis, by Dr. Marcet, who, with his accustomed alacrity and zeal in the pursuit of science, readily undertook the task of ascertaining its component parts.

“ It was of an oval shape, nearly regular, smooth at its surface, and of a whitish or pale yellowish colour; it weighed 228 grains, and was specifically lighter than water, as appeared from the calculus floating upon the surface of that fluid. In its longer diameter it measured 1.6 inch, and in its smaller diameter 1.1 inch, the circumference in that direction being exactly 3.3 inch. (*Vide Plate.*)

“ On being cut through with a view to examine its internal structure, it appeared to consist of concentric layers or successive depositions of calculous matter of various thickness; small quantities of a dark brown, spongy, friable substance, being interposed between the strata. In their fracture the strata exhibited an appearance of radiating laminæ, like spermaceti, and the brown

matter was strewed here and there, with crystalline particles of a spermaceti-like substance. The calculus was altogether fusible by heat and combustible; when ignited it burnt with great vividness, leaving minute portions of an alkaline ash. When digested with alcohol it readily dissolved, with the exception of a little brownish matter, forming a transparent solution, which, on cooling, congealed and exhibited a congeries of crystalline transparent laminæ, which dissolved again on applying heat. A portion of the calculus being boiled in a solution of caustic potash, imparted to it a greenish colour; yet but a very minute portion of the calculous matter was dissolved in the alkaline menstruum, and on adding muriatic or nitric acid to this solution, no precipitation whatever took place. The brown interposed substance, or colouring matter of the calculus, formed but a very small proportion of the mass, and consisted probably of vitiated bile. It conveyed at first the idea of coagulated blood, but, I believe, without foundation."

That the calculus was the immediate cause of the obstruction in the bowels can hardly be doubted, and from the pain she endured in the left side of the abdomen just above the ilium, there is great reason to suppose, that the stone was for some time arrested in its progress in the sigmoid flexure of the colon, at which part the course of the intestine usually forms an angle more or less acute,

and generally is also much straightened in its diameter by the reflection of peritoneum ; from this occasional formation it is, that stones of fruit, and other indigestible substances, are liable to be detained in their passage along the intestinal canal. From exposure to such causes of irritation, it happens that stricture, and schirrous indurations, are more frequently detected in this part of the canal than elsewhere. That the calculus was originally formed in the gall-bladder, we have the evidence of the foregoing analysis, which satisfactorily proves its possessing the ordinary properties of biliary concretions, without the admixture of *fæces* or any other extraneous matter. Calculi and other concretions have been repeatedly found lodged in the intestines of different animals, particularly in the horse, which in many instances have increased to a prodigious size, without being productive of any apparent inconvenience, as these substances are usually lodged in the *sacculi* of the great intestine, and do not in the least interrupt the free passage of the *fæces*. The chemical properties of these substances, however, bear no kind of analogy to concretions formed in the gall-bladder, nor do they appear to be at all connected with hepatic affections.

In the present instance, it is perhaps much more easy to account for the obstruction which took place in the intestinal canal, than to explain the mode of expulsion of so large a body from the gall-

bladder into the duodenum, and afterwards its progress along that part of the intestine engaged in the hernial sac.

The passage of biliary concretions from the liver to the intestine, even when of a small size, is often attended with much local pain, and irritation of the system generally, and is also frequently accompanied with rigors, discoloration of the skin, and other well marked symptoms of icterus. When these distressing affections occur, are not the parts concerned more or less in a state of inflammation, or under the influence of spasm, either simply or combined? But in cases where neither of these actions is going forward, may not the ductus choledochus be considered in a passive state, admitting of an easy and gradual extension of its fibres, so as at length to allow of the free egress of the stone in question? Although there is no direct proof to bring forward in the present case in support of such a conclusion, still a number of facts might be adduced in the shape of presumptive evidence, as testimonies in its support. Many instances are recorded where the ductus choledochus has been found upon dissection considerably dilated, and in two cases under my own observation, the point of the fore-finger readily passed from the duodenum into the gall-bladder: in neither of these subjects did there appear to be any derangement in the structure of the liver, nor had the existence of gall-stones ever been sus-

pected during the patient's life-time. It is also well known, by repeated observations, that concretions of a large size, and often in considerable numbers, will be found in the gall-bladder, without having been known to have occasioned any serious disturbance during life; and a stone of an irregular form has been detected firmly impacted in the duct, which had apparently been lodged there for some time without inducing either spasm or inflammation. On the other hand it must be admitted, that when the calculus is of such a magnitude and shape as entirely to prevent the free egress of the bile, a train of symptoms of the most distressing kind will most probably ensue, and terminate in suppuration; when if the abscess fortunately points outwardly, it now and then happens that the stone shall escape by an external opening, and the patient, after long protracted sufferings, shall ultimately recover. The venerable Heberden has noticed an instance of such a termination, and another interesting case of the same kind is given by Mr. Blagden in the 5th volume of the Medical Transactions of the College.

It may be proper to notice, that Mrs. P. was a woman of regular habits, and of a placid, quiet disposition, had uniformly enjoyed most excellent health, and had never shewn any symptoms of jaundice. She was now and then subject to slight attacks of dyspepsia, accompanied by acid eructations, but she was generally able to account for

the presence of these affections from some irregularity in diet. Ten days after the expulsion of the calculus, I found her complaining of pain in the epigastric region, with the eyes and skin evidently tinged of a yellow colour; upon further inquiry, the fæces were ascertained to be nearly white, and the urine much loaded with bile: these symptoms speedily disappeared upon taking a few doses of magnesia and rhubarb; strict attention was paid to the examination of the fæces, they gradually regained the natural colour, but nothing like gall-stones was ever observed.