or necrosis which we propose to remove may be only the symptom or effect of a deep-seated disease, and may not be limited, as we might be tempted to think. In four men who solicited me to perform the operation, and which I declined to do, the affection of the ribs in one case originated from caries of one of the vertebræ, and in the others from pulmonary tubercles. In conclusion, this exsection is not to be performed unless the disease, besides being circumscribed, is altogether local, or unless by its presence it threatens to give rise to serious accidents.

Article XI.—The Pelvis.

Many points of the bones of the pelvis project so much outwardly as to have naturally suggested to the minds of surgeons the idea of attempting their exsection.

§ I.

The *coccyx* and *point of the sacrum*, among others, have often been removed for caries or necrosis, whether caused by a fall on the breech or by any other force, or by some internal disease.

Bourleyre (*Anc. Jour. de Méd.*, t. XLIII., p. 316) gives the history of a caries which perforated through and through the sacrum. The bone in its middle portion was denuded to the size of a sou, and pierced from above downwards; but no treatment was used but that of bourdonnets, (see Vol. I.—rolls of lint,) saturated with mercurial water, (eau mercurielle—proto-nitrate of mercury.) Champeaux (*Gazette Salutaire*, 1769, No. 31, p. 3) mentions the case of a female aged thirty-six years, who in consequence of falling upon a cart wheel from a height of more than twenty feet, had a necrosis of the sacrum. A longitudinal incision from the middle part of the bone as far as the extremity of the os coccygis, enabled the surgeon to ascertain with his finger that the sacrum was fractured throughout the greater portion of its extent, and that most of the splinters were loose. He thus extracted by means of the forceps (tenettes) more than twenty pieces of bone, and the cure was accomplished at the expiration of two and a half months.

The operation, moreover, in such cases is so easy that it scarcely requires to be described. The patient should have a pillow placed under the belly, and ought to lie down in that position on the border or foot of the bed. Nor would there be any objection to placing him in the same manner as for the operation of fistula in ano or for stone.

The sides of the breech being then held apart, the surgeon incises upon the median line from the neighborhood of the anus to the posterior surface of the pelvis; then separating the lips of the wound as he continues to detach them, he prepares for seizing hold of and raising up the diseased bone. For that purpose a good pair of forceps will answer if the osseous fragment is moveable; in the contrary case he proceeds with a mushroon-shaped saw if there is only a super-

ficial necrosis or caries, or with the flat rowel saw in case of a deep-seated lesion, to cut through the whole thickness of the bone, at some lines outside of (au-dessus) the diseased region. A chisel or spatula, or any other solid lever, inserted into the track of the saw, would then suffice to detach (faire basculer) the bone and thus complete its exsection. Seizing it then with an érigne, a forceps or the fingers, nothing more remains, in order to extract it entirely, than to gradually detach from it the fibro-cellular tissues upon its borders and its deep-seated (internal) surface. The wound being dressed with balls of lint, the perforated linen and a plumasseau, (see Vol. I.,) would require moreover the same kind of bandage as all other wounds of the anal region.

M. Van Onsenort, who extirpated the os coccygis in consequence of a fistula kept open by a caries of this bone, proceeded in the following manner. With the fore-finger of the left hand introduced into the rectum he supported the rectum. An incision was then made on its middle part, from the base to the apex (sommet) of the bone. By means of a transverse incision made on a line with its point, he was enabled to detach this latter and to separate the soft parts from the inner side of the coccyx. The operation terminated with disarticulation, and the patient promptly recovered without any accidents. M. Kerst has seen a case in which the coccyx was entirely detached from the sacrum and expelled spontaneously. The patient ultimately recovered.

§ II.

The *tuberosity of the ischium* could without doubt, should its diseased condition require it, be exsected in the same way as the great trochanter. Maunoir (*Questions de Chirur., Traité des Ulcères*, p. 164) has published a case of this kind. The caries had proceeded to great extent. After the incision two cauteries were applied, heated to a white heat, and then recourse was had to tamponing, (tamponnement, *i. e.*, plugging or tenting a wound, see Vol. I.) Two months later, and after repeated attempts, the surgeon succeeded in extracting a portion of the ischium of the size of a small pullet's egg, when a cure was effected. But I have not been enabled to ascertain that any person since up to the present time has ever suggested or any other surgeon had occasion to perform this operation.

§ III.

It is not, however, altogether the same with the *spine of the ilium* (crête iliaque.) The extent and superficial position of this border of the pelvis, expose it to the action of external violence of every description. Thus is it often the seat of fractures, contusions, and also of caries and necrosis. Abscesses at the bottom of the gluteal region (au fond de la fesse) and in the internal iliac fossa, have also more than once led to the necrosis, and afterwards to the perfora-