cennected with the mesentery or the panereas. However, the tumor was aspirated and about 500 cubic centimetres of urinous fluid removed. A urinary fistula remained, which transmitted purulent urine, while the bladder contained healthy urine. A further operation was undertaken in May 1888, at the patient's request. The abdominal incision was made to the outer side of the rectus muscle and the vascular pedicle of the right kidney ligatured, and it only remained to free the lower end of the kidney when it was discovered that it was prolonged by a sort of bridge four centimetres wide across the vena cava and aorta to the opposite kidney, forming thus a horse-shoe kidney. The isthmus was found to be only slightly connected with the front of the vessels, and he therefore divided it by means of a thermo-cautery. Five ligatures proved to be enough to arrest all hemorrhage from the divided surface, the capsule was sewed as a flap over the cauterized surface, and the operation was completed by a lumbo-abdominal drain. The progress was excellent. The urine was albuminous and bloody for a few days only. The patient went out well twenty-five days after the operation. She was seen four months later in good health, with good color, and able to work.

Braun of Heidelberg has reported a somewhat similar case, and the fact that a horse-shoe kidney existed was only made out during the operation for pyonephrosis. The adhesions between the vena cava and the isthmus were so close that hemorrhage occurred, and the patient died at the finish of the operation. Braun, therefore, came to the conclusion that the existence of a horse-shoe kidney was an absolute contra-indication to operation. Socin's case, however, shows this conclusion to be incorrect. The diagnosis is impossible before operation, and the surgeon must treat the case as occasion demands.—(*London Medical Recorder*, Aug. 1889.)

Horse-shoe kidney is comparatively rare. According to Prof. Roth of Basle it occurred five times in 1630 autopsies (1 in 326). I have seen three in my experience, which is not inconsiderable. Normally they have no attachment to the vena cava and aorta, and in Braun's case the adhesions must have