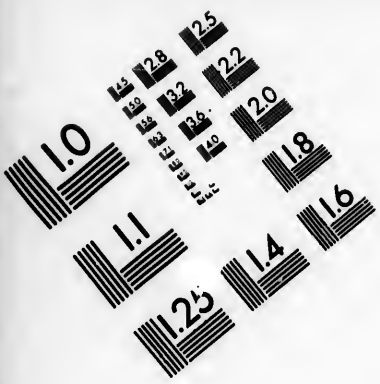

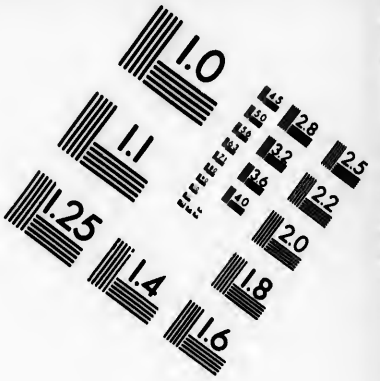

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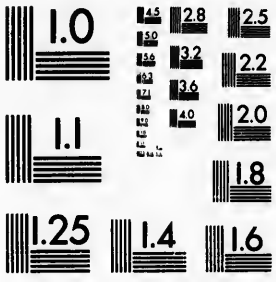

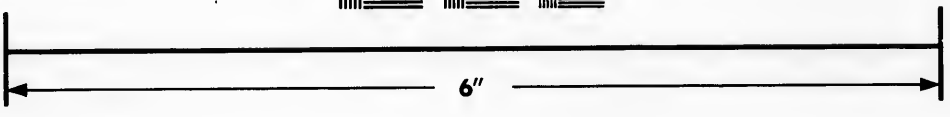

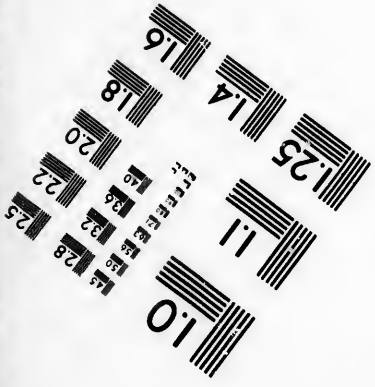

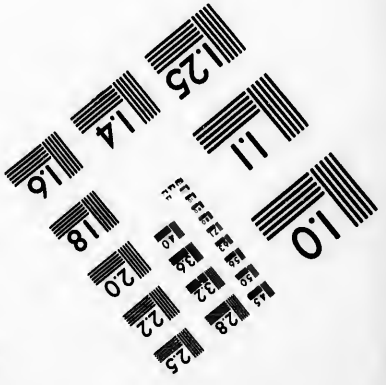

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Two Adami, J. G.

TWO CASES OF COMPLETE DOUBLE URETER.

BY

J. G. ADAMI, M.A. M.D.,
Professor of Pathology, McGill University, Pathologist to the Royal Victoria Hospital.
AND
J. L. DAY, B.A.

Reprinted from the Montreal Medical Journal, April, 1894.

TWO CASES OF COMPLETE DOUBLE URETER.*

By J. G. Adami, M.A., M.D.
Professor of Pathology, McGill University, Pathologist to the Royal Victoria Hospital,
AND
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Although the condition of multiple ureters is one of comparatively frequent occurrence, it would seem that in nearly all the cases recorded of this abnormality fusion of the ureters, forming a single canal, had taken place before perforation of the bladder wall. The entrance into the bladder of accessory ureters by separate openings, is a condition which authorities on the subject are unanimous in regarding as extremely rare.[1] Gangolphe[2] states that in his search of medical literature, he was able to find only two examples. His search must have been incomplete, for we have met with about a dozen recorded cases in all—sufficiently few, however, to merit that the two cases in hand be described.

Of these one was discovered in a recent autopsy at the Royal Victoria Hospital on the body of a man aged 65. The right kidney in this case was normal; the left exhibited more than one abnormality. There were two renal arteries. The upper of small size, was given off from the side of the aorta just above the level of the cœliac axis. This passed into the substance of the cortex[3] of the upper part of the kidney upon its anterior and upper surface, and half way along its course gave off the left suprarenal artery. The main renal artery left the aorta at its normal point of origin, and divided into three branches, of which the lowest passed in front of the renal vein, and sub-divided into three branches.

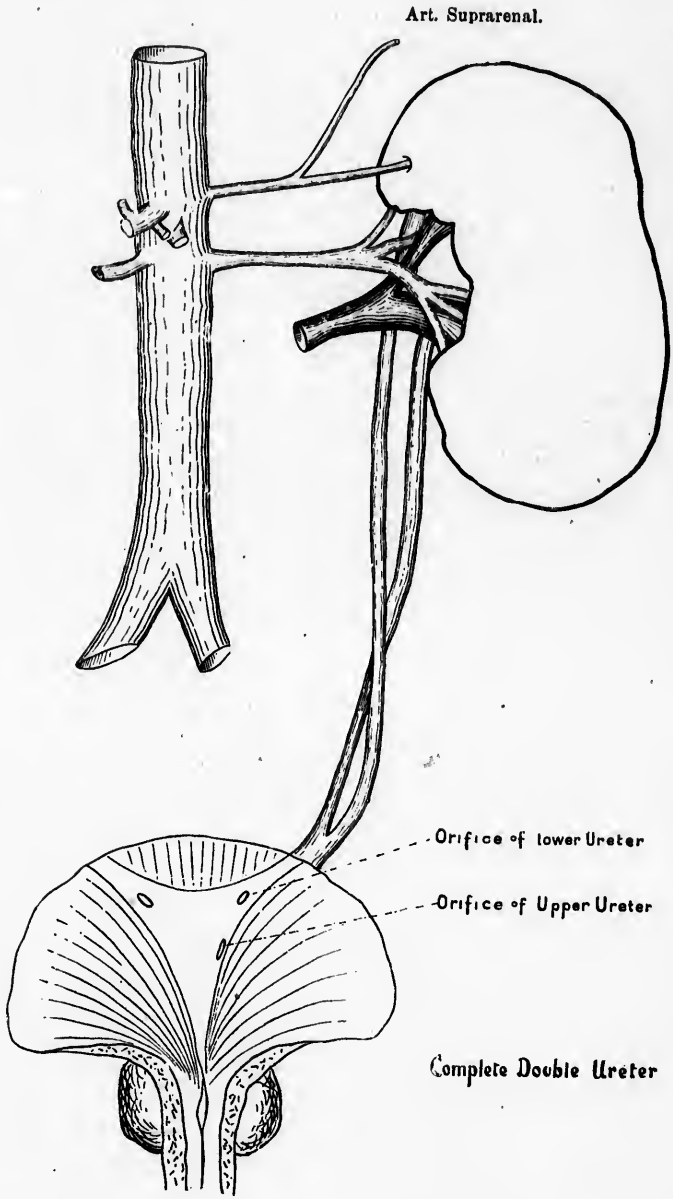
The kidney presented two pelves. The ureter of the upper one, which was the smaller, passed down behind the vessels, and crossed in front of the inferior ureter. Half an inch before reaching the bladder wall the ureters became fused externally, but at the same time the canals remained distinct. It was not possible to pass a pin probe from one to the other, nor could fluid injected into one ureter be found to pass into

* Read before the Montreal Medico-Chirurgical Society, February, 1894.

[1] Klebs *Path. Anat.* ii, page 678 (1876); Rokitansky *Path. Anat.* Syd. Soc. ii, p. 211; Foerster *Path. Anat.* p. 523 (1865).

[2] Lyon Médicale, No. 26, 1883.

[3] An artery piercing the cortex is said to occur in 1 in 7 bodies examined.



Complete Double Ureter

the other under any conditions. The ureter given off from the lower pelvis may be considered as the main duct, inasmuch as it was slightly larger, while its opening into the bladder was in the usual position, and corresponded to that of the single ureter of the right side. The superior and accessory ureter opened into the bladder by means of a small, but distinct, slit-like aperture, situated half an inch below, and to the inner side of the main orifice, in the line between that and the urethral orifice.

The second case is a specimen obtained from a female body by Dr. Shepherd, of McGill University. This has, for many years, been in the Museum of the Medical college, and has never been recorded.

With the exception that the kidney here presents a more clearly lobulated appearance, and that there is no arterial abnormality, the case is almost identical with the preceding. The reduplication occurs only on the left side, there are two pelves, the upper being the smaller, the superior ureter crosses in front of the inferior, and its separate orifice is also along the edge of the Trigone, in front, and to the inner side of the main orifice, between that and the urethra.

It is a curious fact that in nearly all the recorded cases of this peculiarity it has occurred in the *left* side. The two cases just mentioned are on the left side; Tangl's[1] celebrated case, and Gangolphe's[2] likewise occurred on this side. Baum[3] has lately published a case in which it occurred on the right side. There may be no special significance to be attached to this *left*-sided tendency, but still it appears to obtain.

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[1] Virchow's *Archiv.* 118 (1889) p. 414.
[2] Loc. cit.
[3] Archiv. of Gynœkol. 42, p. 339 (1892).