

ORIGINAL CONTRIBUTIONS

SOME NOTES ON THE VALUE OF THE X-RAY IN DIAGNOSING URINARY CALCULI.*

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WITHIN the past few years the roentgen-ray examination for urinary calculi has reached a high degree of perfection, and, although well known, has not, as far as I can remember, been previously dealt with before this Academy.

Therefore, it may not be amiss to take up some points in connection with its value as a routine diagnostic procedure.

Of the diagnostic methods at our disposal for the detection of calculi, roentgenography holds the premier position of importance.

Let me say at the outset, however, that the older methods of physical and chemical examination have not been displaced. The roentgenologist should receive at least brief clinical details when the patient is referred to him. It is unwise to have him approach the case without knowledge of the principal clinical findings. Such findings will enable him to interpret shadows more intelligently, as there are times when a correct diagnosis on the sole basis of plate findings is utterly impossible.

That it occasionally happens, even with the most approved technic, that calculi are undetected by the X-Ray, is generally admitted. Some enthusiastic roentgenologists have claimed their ability to detect the presence of any urinary calculus, irrespective of its size, location or composition. Others, more modest, have placed the measure of their success as low as 65 per cent.

In one's own experience, one is impressed with the fact that so many cases in which a negative X-Ray finding is obtained, accept this as final, and are not subjected to other methods of diagnosis for verification. Consequently it would appear that an accurate estimate in this matter is not readily arrived at. One feels convinced, however, that calculi of "surgical size" are rarely missed in the kidney. In the Ureter, where the shadows of the spine and pelvis are frequently superimposed, failure to detect a stone is somewhat more common, whilst in the bladder one has known of stones of soft consistency and considerable size escaping detection.

The failure to detect the shadow of a calculus may be attributed to one of four conditions: (1) The consistency of the stone is soft.

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