Bilateral Calcification of the Vas Deferens and the Seminal Vesicles in a Patient with End-stage Renal Disease

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A 52-year-old man with end-stage renal disease treated with peritoneal dialysis presented with poor ultrafiltration and drain alarms of 1 week duration. Past medical history included diabetes mellitus for 20 years and secondary hyperparathyroidism. There was no other significant history of any chronic infections. His physical examination was unremarkable.

A plain abdominal X-ray for catheter position (Fig. 1) revealed an optimal position in the true pelvis. However, to our surprise, an incidental finding of symmetrical tubular bilateral vas deferens (VD) and seminal vesicle (SV) calcification was reported. Retrospectively, family history was obtained. He had two daughters in their 20s without any issues of infertility.

Calcification of the VD and SV was first reported on autopsy in 1906.1 In 1946, it was reported on plain radiograph.2 On a plain radiograph, the symmetrical medial pelvic tubular calcifications in a male patient are fairly pathognomonic for the VD. Deferronto-vesiculography is an imaging technique which confirms if permeability to veru montanum is preserved, ruling out total obstruction or ejaculatory duct atresia. This test was not performed because the patient’s family was complete. The other presentations are hematuria, hemospermia and pain in the perineum, and/or chronic pelvic pain. However, this patient had none of these findings. Etiology of these calcifications includes primary (idiopathic) and secondary associations with diabetes (most common), aging, hyperparathyroidism, mechanical obstruction of the VD, genito-urinary tuberculosis, chlamydial infection, chronic gonorrhea, and schistosomiasis.3 In our patient, both diabetes and secondary hyperparathyroidism were present.

We would like to report an interesting incidental finding of calcification of the VD and SV on imaging which could have potential manifestation as male infertility in this subgroup of people. The practicing physicians should be vigilant enough not to miss them in their clinical practice.

References

Fig. 1: Plain radiograph of the abdomen showing incidental bilateral calcifications of the VD (arrows) and the SVs. The peritoneal dialysis catheter is coiled in retrovesical recess of the abdomen which is considered an optimal location of this catheter. Note is also made of the left transfemoral nail in situ.

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