

## **Prevalence, Documentation and Follow-up of Incidental Abdominal Aortic Aneurysms in Malta.**

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**BACKGROUND:** Incidental abdominal aortic aneurysms (AAAs) are detected during imaging for other purposes. Incidental AAAs are significant findings as they require monitoring and surgical treatment, when indicated, to decrease the risk of morbidity and mortality. The prevalence of incidental AAAs and their management has not been extensively studied and no such study has been carried out in Malta.

**METHODS:** A stratified random sample of 420 imaging studies conducted between January and June 2014 at Mater Dei and Gozo General Hospitals was electronically screened for evidence of AAA. Half of the studies (210) were abdominal computed tomography (CT) and the other half were ultrasound abdomen (US). Medical records of patients with screen-positive reports were reviewed to determine whether the incidental AAA was documented, a follow-up study/treatment was planned, and whether it was communicated to the patient's family doctor through the discharge letter.

**RESULTS:** There was a total of six AAA-positive studies in the sample (1.4%). Three of these were incidental AAAs (0.73%) - two positive USs and a positive CT study. The other three positive studies were follow-up or re-assessment CT imaging for previously identified incidental AAAs (0.73%). Patients with AAAs were elderly (mean age, 71.5 +/- 9.4 years) and 83.3% were male (N=5). The mean diameter of all AAAs in the sample was 5.2 +/- 2.6 cm, compared to a mean of 3.45 +/- 0.25 cm for the incidental AAAs. Five of the six AAAs were infrarenal in location (83.3%), and one was thoracoabdominal. Two-thirds of the incidental AAA-positive studies were performed as outpatient and one study (33.3%) was done on an admitted patient. The incidental finding of AAA was documented in the medical notes of only one of the three patients (33.3%) with incidental AAA-positive scans. There was no follow-up or treatment plan mentioned in two of the three (66.7%) newly diagnosed patients with AAAs; one with a borderline aneurysm and the other with a metastatic disease. The finding of incidental AAA was communicated to the family physician through the discharge letter in 100% of inpatients, whereas no documentation was found for outpatients.

**CONCLUSION:** The prevalence of incidental AAAs in Malta is comparatively common. Documentation and follow-up planning is relatively poor and needs improvement. Large-scale studies are suggested to further examine the monitoring and management of incidental AAAs.

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