Audit on the Utility of Current Guidelines in the Assessment of Adrenal Incidentaloma

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**OBJECTIVES**

Andrenal incidentalomas are a common clinical dilemma and are seen on 4% of abdominal CT scans (1), with incidence rising with increased utility of cross-sectional imaging (2, 3).

Management aims to exclude malignancy and hormonally active lesions.

This audit was performed to assess:

1. Adherence to current management guidelines (AACE)
2. Whether all of the recommended investigations are necessary to exclude serious pathology.

**RESULTS**

**Figure 2 – Summary of diagnoses**

- 100 Adrenal Incidentalomas
  - 83 Benign Adenoma
  - 4 Phaeochromocytoma
  - 7 Indeterminate lesions
  - 6 Miscellaneous

- 67 Discharged following normal CXR
- 8 in/wk follow-up
- 4 Discharged, conservatively
- 2 Surgical resection
- 15 Discharged, conservatively

- 14 - No further is due to conservatively
- 1 ACC
- 1 MTS
- 1 Surgically resected mass awaiting histology
- 1 Metastasis
- 1 Posterior gastric diverticulum

**Figure 3 - Incidence of pathologies in audit compared to literature review (2)**

- Pathology Incidences in Audit
  - benign adenoma: 83%
  - phaeochromocytoma: 4%
  - indeterminate lesion: 7%
  - miscellaneous: 6%

- Pathology Incidences in Literature Review
  - benign adenoma: 50%
  - phaeochromocytoma: 20%
  - indeterminate lesion: 10%
  - miscellaneous: 5%

**Trust adherence to AACE Guidelines:**

- 100% referred, underwent history and examination with an endocrinologist
- 88% had overnight dexamethasone suppression test
- 87% had renin:aldosterone ratio
- 90% had Urinary catecholamine/metanephrine levels
- Repeat imaging not done as follow-up of benign adenomas, and 80% of these patients discharged.

**Investigation outcomes:**

- 80% (4/5) phaeochromocytomas were highly suspected on initial imaging, 1 was an indeterminate scan.
- 50% had initial imaging consistent with benign adenoma, of which 12% had additional imaging to confirm diagnosis.
- 100% had normal renin:aldosterone and potassium levels.
- 83% were hormonally inactive.
- Of the hormonally active cases - 8 adenomas, 5 phaeochromocytoma, 1 indeterminate lesion, 2 myelolipoma, 1 metastasis.

**CONCLUSIONS**

Adrenal Incidentalomas with the following features may not require further investigation as results are largely unrewarding:

1. Imaging features consistent with benign adrenal adenoma
2. No symptoms/signs
3. Normotensive
4. Normokalaemic

All confirmed cases of hormonally active tumours and malignancy had abnormal or indeterminate imaging.

None of those tumours considered to be benign adenomas on imaging proved to be hormonally active and endocrine screening may therefore not be necessary.

**REFERENCES**