Current management of adrenal incidentalomas- a United Kingdom single centre experience

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Background, objectives & methods

Adrenal incidentalomas (AI) are asymptomatic adrenal lesions found on imaging not primarily performed to detect adrenal disease[1]. We conducted a retrospective audit of management of AI following updated local guidance which changed following updated European Society of Endocrinology guidance (2016)[2].

Objectives:

- Assess local case load and number of functional AI
- Assess compliance with local standards

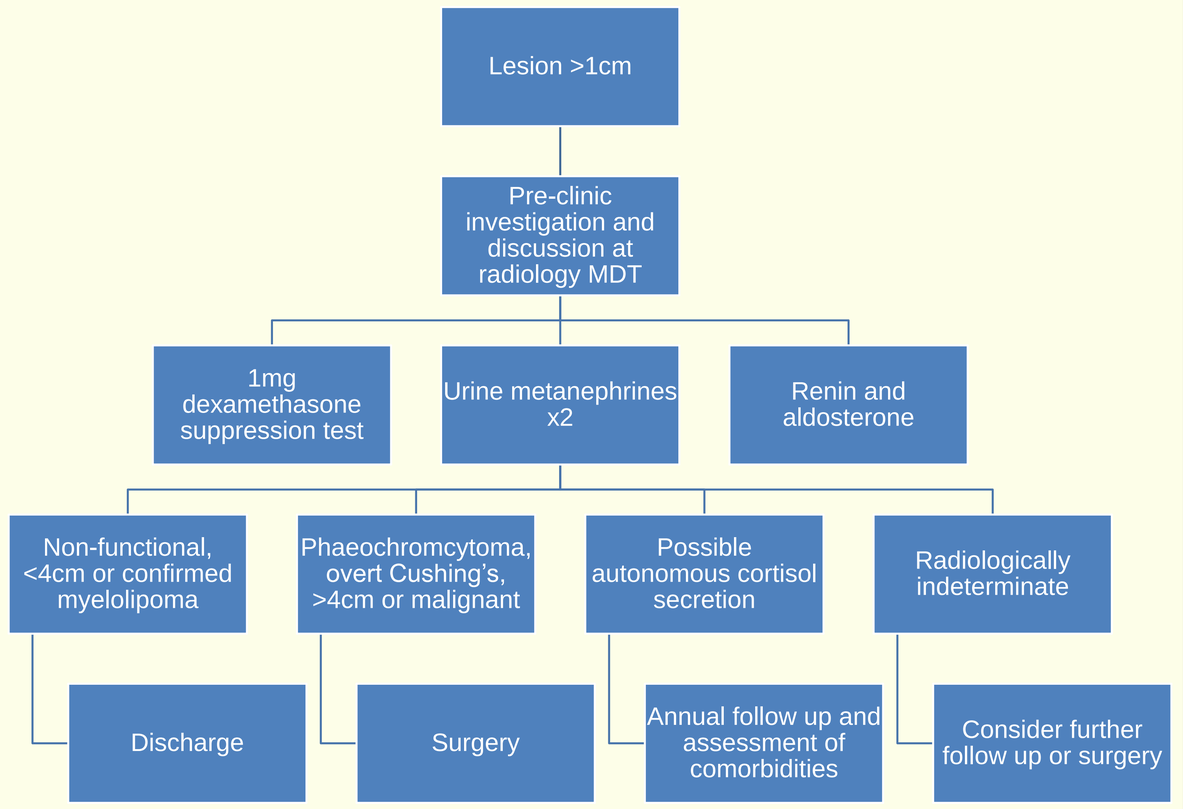
Audit standard:

- For lesions >1cm 100% of patients should have:
  - 1mg overnight dexamethasone suppression test (ODST) or equivalent
  - 24 hour urine metanephrines or equivalent
  - Plasma renin and aldosterone
- 100% of patients undergoing adrenalectomy or biopsy must have phaechomocytoma treated or excluded

Methods

This was a retrospective review of management of adrenal incidentaloma over 9 months (June 2017 - March 2018). Cases were identified using the local electronic secondary care referral system, of the referral console. Additional data collected from clinic letters and investigation results.

Clinic overview



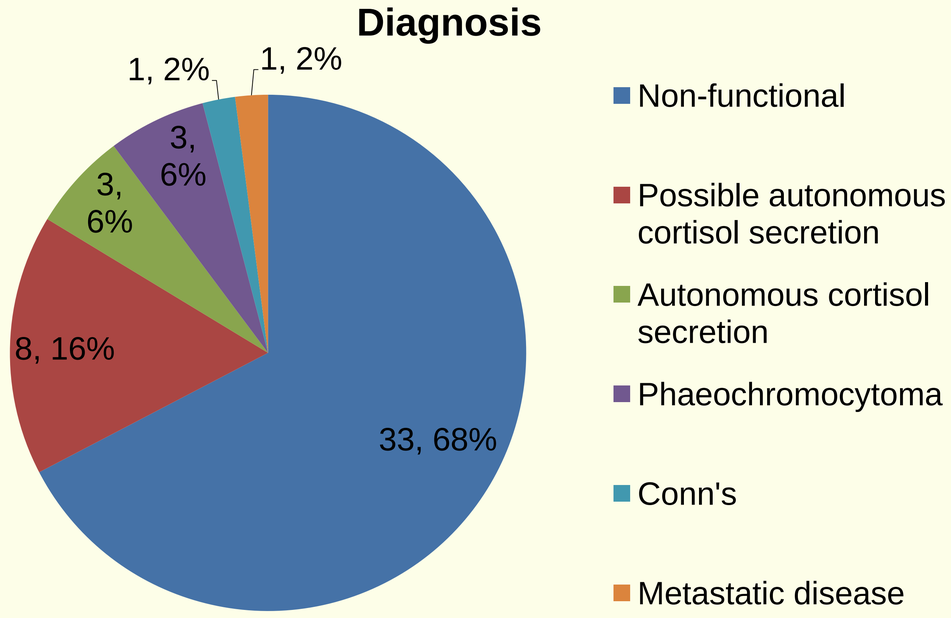
Results

63 cases were identified. 14 were excluded (12 pending, 1 not incidentaloma, and 1 declined follow-up). From the remaining 49 cases 25 were female and 24 were male. 41 (84%) had all recommended investigations completed. The commonest reasons for non-compliance were lesion deemed low risk or investigations were requested, but not completed.

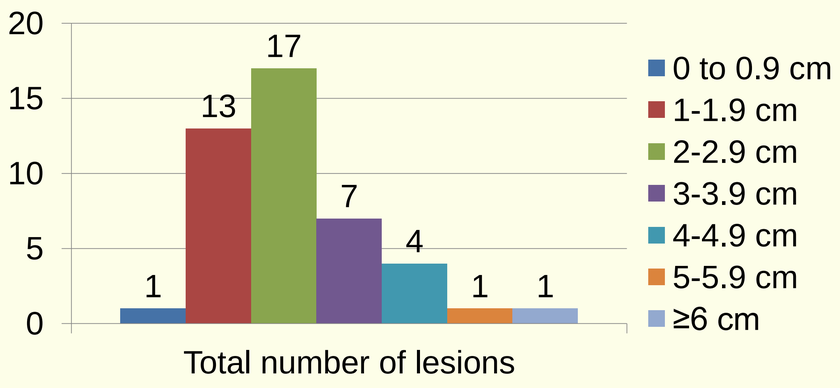
For Cushing's workup, 39 (80%) had overnight dexamethasone suppression testing (ODST), 5 (10%) 24h urinary free cortisol and 1 (2%) low dose dexamethasone suppression testing (LDDST). 16 (33%) failed ODST (2 were deemed to be non-functional and remaining 14 underwent LDDST). LDDST revealed 3 (6%) normal, 3 (6%) autonomous cortisol secretion and 8 (16%) probable autonomous cortisol secretion.

8 patients were referred for surgery. 3 cases were on size grounds alone (lesion >4c.m) of which all had possible autonomous cortisol secretion. 3 cases were due to phaeochromocytoma. 1 case was due to metastatic disease. 1 case was removed as part of a nephrectomy for a non-functional kidney.

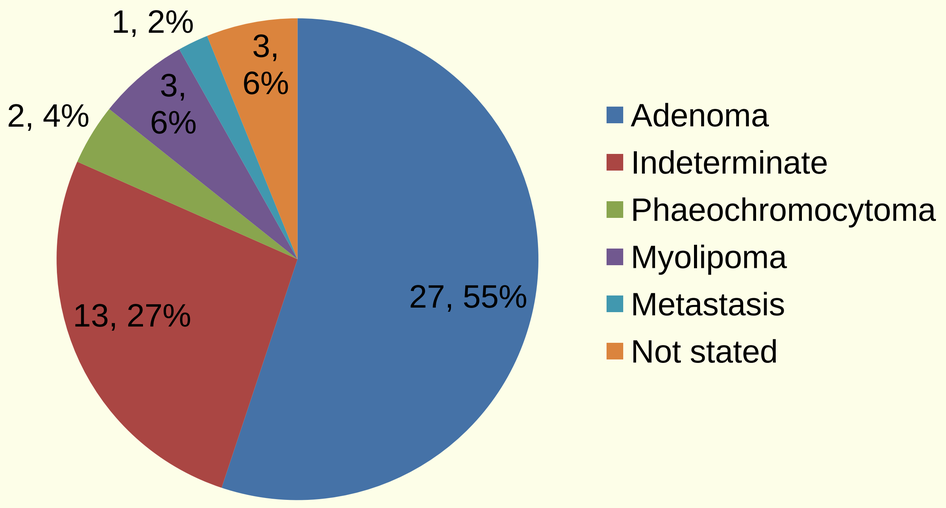
Diagnosis



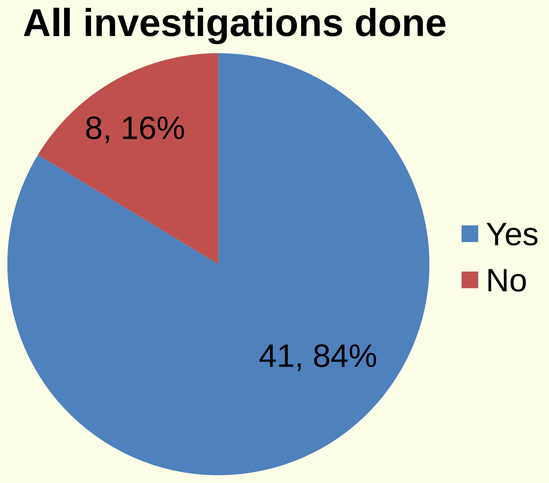
Size of lesion



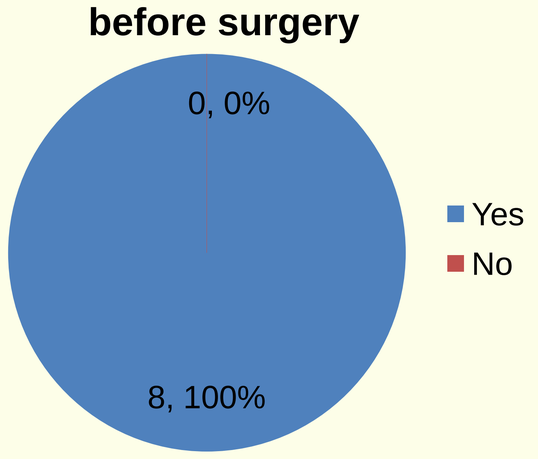
Radiological classification



All investigations done



Metanephrines checked before surgery



Conclusion

The use of pre-clinic investigation protocol facilitated our adherence to the guideline.

Incidence of functional tumours was similar to the literature justifying investigational approach.

Significance of possible autonomous cortisol secretion has yet to be fully understood and longer follow up will be required.

References

1. Hanna FWF, Issa BG, Sim J, Keevil B, Fryer AA. Management of incidental adrenal tumours. BMJ. 2018 Jan 18;360:j5674.
2. Fassnacht M, Arlt W, Bancos I, Dralle H, Newell-Price J, Sahdev A, et al. Management of adrenal incidentalomas: European Society of Endocrinology Clinical Practice Guideline in collaboration with the European Network for the Study of Adrenal Tumors. Eur J Endocrinol. 2016 Aug 1;175(2):G1–34.

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Adrenal and steroids

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