

Phaeochromocytoma:

The Mater Hospital experience over the past two decades



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BACKGROUND

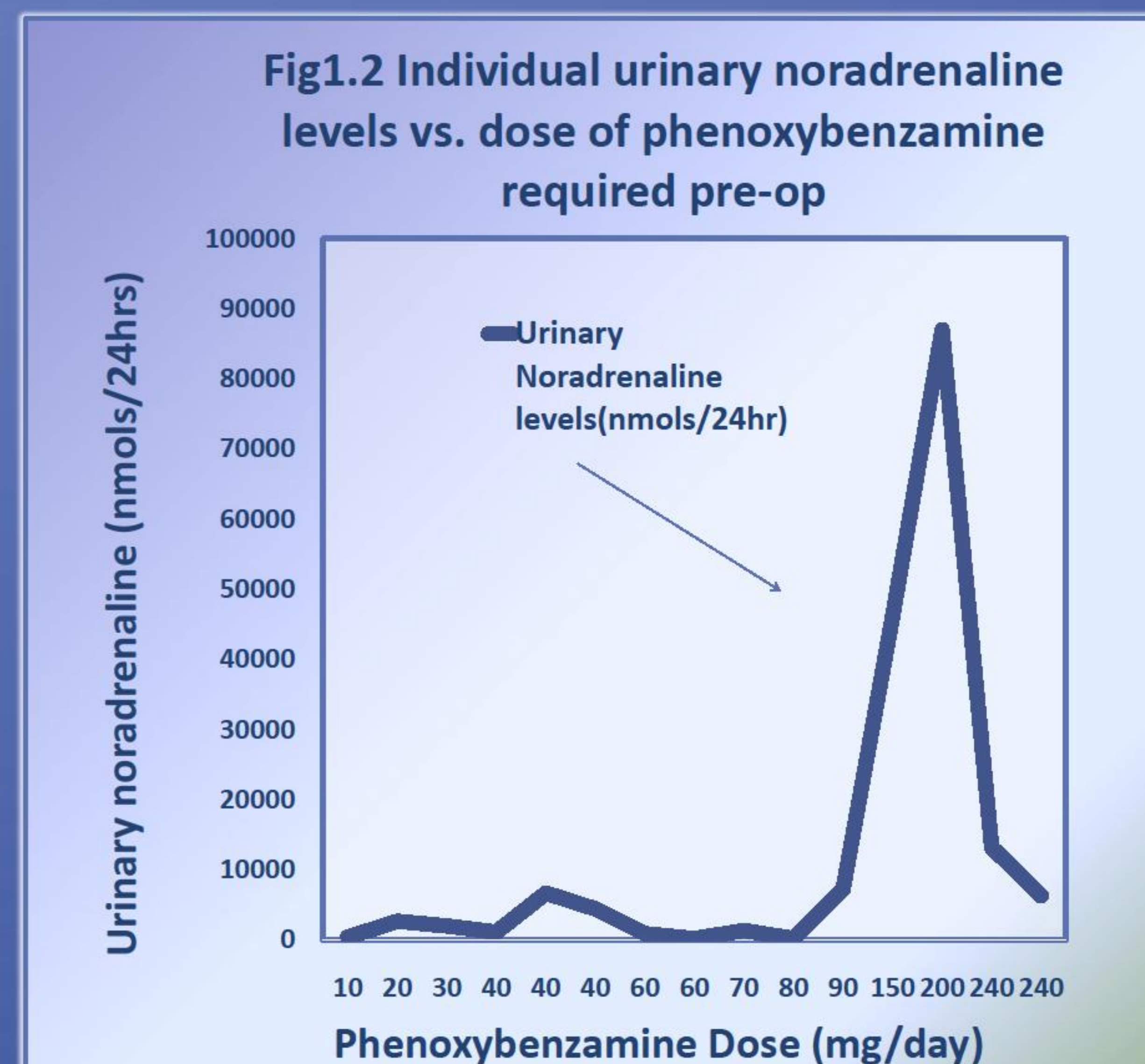
Phaeochromocytoma is a rare neuroendocrine tumour. Incidence has been quoted at two to eight cases per million people. Over the past 18 years, there were 22 cases of surgically resected phaeochromocytoma in the Mater Hospital.

METHODS

This is a retrospective study reviewing all cases of surgically resected phaeochromocytoma in a large tertiary referral centre between 1996 and 2014. There was with particular focus on preoperative care.

RESULTS

There were 22 cases of surgically resected phaeochromocytoma. 13.6% (n=3) of patients had malignant phaeochromocytoma.



Age at diagnosis:	27-65 yrs	Average 47yrs
Gender:	Female	63.6% (n=14)
	Male	36.4% (n=8)
Diagnosis:	Symptomatic	81.8% (n=18)
	Incidental	18.2% (n=4)
Catecholamine induced complications at presentation	Hypertensive crisis	14% (n=3)
	Hypertensive retinopathy	4.5% (n=1)
	Cardiomyopathy	4.5% (n=1)
	Psychiatric disturbance	4.5% (n=1)
	Intra op -cardiac arrest	4.5% (n=1)
Concurrent medical conditions at diagnosis	Hypothyroidism	18% (n=4)
	Type 2 Diabetes Mellitus	18% (n=4)
	Neurofibromatosis Type 1	9.0% (n=2)
	Pregnancy 29/40 gestation	4.5% (n=1)
	Stage IV Colorectal Cancer	4.5% (n=1)
	Active cocaine use	4.5% (n=1)
	Type 1 Diabetes Mellitus	4.5% (n=1)

Surgical Approach	Laparotomy
Unilateral Adrenalectomy	95.5% (n=21)
Bilateral Adrenalectomy	4.5% (n=1)
ICU/HDU Admission post-op	81.8% (n=18)
Average ICU/HDU LOS (days)	3.8 (+/- 1.6)
Patients requiring inotropic support	50% (n=11)
Inotropic support duration (days)	2.9 (+/- 1.1)
Immediate operative complications:	
Cardiac arrest at induction	4.5% (n=1)
Hypotension	50% (n=11)
Hypertension	4.5% (n=1)
Early post op complications:	
Lower respiratory tract infection	4.5% (n=1)
Renal haemorrhage	4.5% (n=1)
Late post op complications	Nil
Mortality related to surgery	Nil

In terms of pre-operative optimization, medical treatment involves alpha blockade initially +/- beta blockade if tachycardic. It took 9.75 +/- 8.2 days on average to obtain adequate alpha blockade. The mean dose of phenoxybenzamine used was 91.1 +/- 71.7mg.

	Admission	Pre-operative	Post-operative
BP (mm/hg)	152/92 +/- 34/18	122/71 +/- 19/12	108/63 +/- 15/10
HR (bpm)	87 +/- 14	74 +/- 16	75 +/- 14

CONCLUSION:

Over the past eighteen years, there has been twenty two successful surgical resections of phaeochromocytomas in the Mater Hospital. Each one presents a unique set of management challenges. Our report demonstrated that once diagnosed, intensive medical stabilization and specialised surgical expertise are required to prevent adverse outcomes perioperatively.