

Prevalence of Clinically Apparent Prolactinomas in the Subfertile Male MP26-05

Introduction

- The physiologic role of prolactin in men remains unclear. However, excessive serum concentrations of prolactin can lead to clinical sequelae such as infertility and hypogonadism.
- Using population-based studies, the prevalence of prolactinoma in the general male population is estimated at 1:100,000 (0.0001%).
- Although a well-established cause of male infertility, the prevalence of prolactinoma within this subgroup has not previously been evaluated.

Methods

- We retrospectively examined all men presenting for initial male fertility consultation at a tertiary care center with a single reproductive urologist between 1999 and 2018.
- Men with a prolactin level collected at this encounter were analyzed with descriptive statistics to determine incidence of hyperprolactinemia and resulting clinical significance.

Conclusions

- clinicians should continue to include this condition in the differential diagnosis of male subfertility.

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Table 1. Characteristics of Patients with Prolactinomas within a Subfertile Male Population								
	Prolactin (ng/mL)	Testosterone (ng/mL)	LH (mlU/m L)	FSH (mlU/m L)	MRI findings	Treatment	Pregnanc y Outcomes	Natural vs. IVF
1	2681.3	1.9			Macroadenoma - 27 mm	Cabergoline	Yes	Natural
2	917.6	3.9	0.7	2.9	Macroadenoma - 17mm	Cabergoline	Unknown	
3	317.9	1.69	2	2.3	Macroadenoma - 14.3 mm	Cabergoline	Yes	Natural
4	142.9	1.24	2.2	3.2	Microadenoma	Cabergoline	Yes	Natural
5	59.1	0.98	4.34	4.95	Microadenoma	Cabergoline	Unknown	
6	48.4	0.71	10.4	35.7	Microadenoma	Cabergoline	Unknown	
7	36.8	4.55	2.4	3.4	Microadenoma	Observation	Yes	Natural
8	32.2	3.25	2.3	7.7	Microadenoma	Cabergoline	Yes	IVF
9	32.1	1.69	3.2	17	Microadenoma	Cabergoline	Yes	IVF
10	28.2	0.62	0.2	0.3	Microadenoma	Observation	Unknown	
11	19.6	3.91	4.1	11.8	Microadenoma	Observation	Yes	IVF

• This is the largest known study to evaluate the prevalence of prolactinomas among a population of subfertile males.

We found a 350-fold increased prevalence of prolactinoma among our cohort when compared to the general male population. • Despite a low absolute prevalence, prolactinoma remains an important source of morbidity and potential etiology for subfertility, and



Results

- Among 4116 men presenting for initial fertility consultation, 3102 had a serum prolactin level measured.
- 65 men (2.1%) had a prolactin level greater than or equal to 18 ng/mL.
- Of the 65 men with an initial elevated prolactin level, 21 (32.3%) were evaluated by an endocrinologist and 21 (32.3%) underwent a brain MRI.
- 11/65 (17%) were diagnosed with a pituitary adenoma, of which 8 were microadenomas (<10 mm on MRI) and 3 were macroadenomas (>10mm).
- 8 of the 11 men with a prolactinoma were treated with cabergoline.
- The overall prevalence of a clinically apparent prolactinoma in our cohort was 11/3102 (0.35%).

PREVALENCE OF PROLACTINOMA PER 100,000 PEOPLE



350 Subfertile Male Population

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