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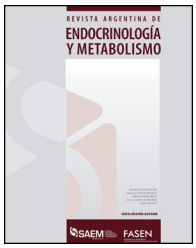

Original research

# Electronic survey of management of hyperprolactinemia in Brazil: Endocrinologists versus gynecologists

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ABSTRACT

Hyperprolactinemia is a frequent condition in clinical practice, responsible for 20–25% of secondary amenorrhea cases. We performed an electronic survey among members of the Brazilian Society of Metabolism and Endocrinology (SBEM) and the Brazilian Federation of Association of Gynecology and Obstetrics (FEBRASGO) to assess diagnostic and therapeutic preferences for management of hyperprolactinemia. Electronic addresses of SBEM and FEBRASGO members were obtained from the directories of these societies, and these members were invited, through electronic messages (e-mail), to answer an online questionnaire that included 10 questions about the treatment of micro and macroprolactinomas, maximum dose of dopamine agonist, how to exclude primary hypothyroidism and macroprolactinemia, hyperprolactinemia and pregnancy. We received responses to the questionnaire by e-mail from 521 SBEM members and 233 FEBRASGO members. The results of this survey demonstrate that there are many area of agreement between SBEM and FEBRASGO members and most of their responses follow the latest Endocrine Society Guideline. Relative to a survey performed several years ago, our findings show that SBEM members have incorporated some of latest recommendations in this field. The principal issues of concern for both groups are duration of dopamine agonist treatment for patients with microprolactinoma and dopamine agonist withdrawal during pregnancy.



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## Investigación electrónica del tratamiento de la hiperprolactinemia en Brasil: endocrinólogos contra ginecólogos

*Palabras clave:*
Hiperprolactinemia
Investigación electrónica
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RESUMEN

La hiperprolactinemia es una alteración frecuente, siendo responsable del 20 al 25% de los casos de amenorrea secundaria. Se realizó una investigación electrónica entre los miembros de la Sociedad Brasileña de Endocrinología y Metabología (SBEM) y de la Federación Brasileña de Ginecología y Obstetricia (FEBRASGO) para evaluar sus preferencias en el diagnóstico y el tratamiento de la hiperprolactinemia. Las direcciones electrónicas de miembros SBEM y de FEBRASGO se obtuvieron a partir de los directorios de esas sociedades. Se invitó a estos miembros a responder un cuestionario que incluía 10 cuestiones sobre el tratamiento de los micro y macroprolactinomas, dosis máxima del agonista dopaminérgico, hiperprolactinemia e hipotiroidismo primario, macroprolactinemia, prolactinoma y embarazo. Hemos recibido respuestas de 521 miembros de la SBEM y de 233 miembros FEBRASGO. Los resultados demuestran que hay bastantes áreas de concordancia entre los miembros de la SBEM y de la FEBRASGO y que la mayoría de las respuestas están de acuerdo con el último consenso de la Endocrine Society. En cuanto a una encuesta similar realizada hace años, nuestros resultados muestran que los socios de SBEM incorporaron algunas de las últimas recomendaciones propuestas en esa área. Los principales aspectos de interés en ambos grupos son la duración del tratamiento con el agonista dopaminérgico y la retirada del mismo durante el embarazo.



## Introduction

Hyperprolactinemia is a frequent condition in clinical practice, responsible for 20–25% of secondary amenorrhea cases,[1] and prolactinomas are an important cause of pathological hyperprolactinemia. They are classified according to their size: micro (<10 mm in diameter) and macroprolactinomas (>10 mm in diameter). Most are small, intrasellar, and rarely increase in size.[2,3]

The principal symptoms of hyperprolactinemia are amenorrhea in women, erectile dysfunction in men and infertility and reduced libido in both sexes. Patients with large prolactinomas may also present with hypopituitarism, headache and visual field loss.[4]

The primary treatment objective in patients with microprolactinoma or idiopathic hyperprolactinemia is to restore gonadal and sexual function by normalizing prolactin levels.[2] However, in the presence of macroprolactinomas, reducing and controlling tumor size are also fundamental goals.[2]

Dopamine agonists (DAs) are the first treatment option for prolactinomas. All DAs are efficacious, but cabergoline and bromocriptine are most commonly used worldwide. These drugs are able to normalize prolactin levels, restore gonadal function and promote tumor reduction in the majority of patients.[2]

Despite existing guidelines regarding the management of hyperprolactinemia,[2] controversies remain regarding when to screen for macroprolactinemia, what kind of patients should be treated, treatment duration, maximum dose of the DA and treatment approach during pregnancy.

We performed an electronic survey among members of the Brazilian Society of Metabolism and Endocrinology (SBEM) and the Brazilian Federation of Association of Gynecology and Obstetrics (FEBRASGO) to assess diagnostic and therapeutic preferences for management of hyperprolactinemia.

## Methods

Electronic addresses of SBEM and FEBRASGO members were obtained from the directories of these societies, and these members were invited, through electronic messages (e-mail), to answer an online questionnaire that included 10 questions about controversial issues concerning the management of hyperprolactinemia (Table 1). For each question, the participant could select only one answer. The first two questions were about how to exclude primary hypothyroidism and macroprolactinemia in asymptomatic patients. Questions 3–5 addressed the treatment of micro and macroprolactinomas, and questions 6–8 inquired about the efficacy of bromocriptine and cabergoline and maximal doses of each drug. The remaining two questions dealt with hyperprolactinemia and pregnancy. The local ethical committee approved this study.

### *Statistical analysis*

The results are predominantly given as percentages. The proportions of chosen answers for each question, between and within groups, were compared using the Goodman multinomial proportions test. $p$ values <0.05 were considered statistically significant.