

HYPERPROLACTINEMIC AMENORRHEA – INSIGHTS FROM A CASE CURED DURING PSYCHOANALYSIS

Graça Cardoso* e Luís G. Sobrinho**

Resumo

Apesar de abundante evidência científica mostrando que a hiperprolactinémia depende frequentemente de factores psicossomáticos, existem poucos estudos nos quais os doentes afectados tenham sido alvo de tratamento psicanalítico. Os autores descrevem o caso de uma mulher jovem que apresentava comportamento bulímico, aumento de peso, amenorreia, galactorreia e hiperprolactinémia, desencadeados após a morte do pai e o abandono pelo namorado. O tratamento psicanalítico clássico foi seguido da remissão dos sintomas. Este caso contribui para a compreensão de vários aspectos: 1) a importância da ausência de uma verdadeira fase edipiana no desenvolvimento de algumas mulheres que mais tarde apresentam hiperprolactinémia; 2) os mecanismos através dos quais as perdas afectivas conduzem à activação de uma resposta neuroendócrina específica; 3) o papel crítico da cooperação entre o médico especialista e o psicanalista no

tratamento de doentes com perturbações psicossomáticas.

Palavras-chave: Amenorreia; Bulimia; Perturbações do comportamento alimentar; Hiperprolactinémia; Obesidade; Prolactina; Psicanálise; Medicina psicossomática.

INTRODUCTION

Hyperprolactinemia (and/or galactorrhea) and weight gain in humans can appear associated in conditions other than pregnancy or puerperium. One paradigmatic example is pseudocyesis⁽¹⁾. Also, women who gained weight over a short period of time in the absence of an identifiable metabolic reason have a higher than expected incidence of hyperprolactinemia, galactorrhea and reduced hypothalamic dopaminergic tone^(2,3). Weight gain has been observed at the clinical outset of prolactinomas and of idiopathic hyperprolactinemia⁽⁴⁾. Psychogenesis can be suspected in each of these three examples. Pseudocyesis is a psychotic condition. Weight gain, in the women with dynamic obesity, follows important life events⁽³⁾. Besides, these women score higher than controls for depression in the MMPI and SCL90 inventories⁽³⁾. Prolactinomas and idiopathic

* Serviço de Psiquiatria, Hospital Fernando Fonseca, Amadora, Portugal.

** Serviço de Endocrinologia, Instituto Português de Oncologia, Lisboa, Portugal.

hyperprolactinemia are associated with abnormal mood, commonly occur in the aftermath of important life events and appear to affect predominantly women who were brought up under conditions of paternal deprivation^(1,4,5,6,7).

Prolactin responds to psychological stress in humans⁽⁸⁾. Prolactin and cortisol surges are negatively correlated suggesting that the two hormones are effectors of alternative responses to psychological stress⁽⁸⁾. While there is abundant literature on the activation of the hypothalamo-pituitary-adrenal axis in psychological stress (reviewed in ref. 9) the psychodynamics and neuroendocrine mechanisms of transduction of "psychological stress" into a prolactin response are mostly unknown. Prolactin has been associated with anger⁽⁸⁾ and with passive coping in field studies⁽¹⁰⁾.

Two reports of the psychoanalytical literature, one of them bearing the suggestive title of "Lactation as a denial of separation"^(11,12), describe the occurrence of repeated bouts of galactorrhea following separations. At the time of these reports prolactin assays were not available. Therefore, we thought it might be interesting to report the case of a 27-year-old woman with idiopathic hyperprolactinemia, amenorrhoea, binge eating and rapid weight gain following the death of her father. Her symptoms and hyperprolactinemia resolved without medication during the course of psychoanalysis.

DESCRIPTION OF THE CASE

Helen was a 27-year-old, nulliparous, white female when she first consulted an

endocrinologist (LS) in June 1990 because she had a voracious appetite (sometimes followed by purging) and had gained 6 kg in the previous 8 months. She also referred amenorrhea, which had started at about the same time. Her weight was 65.4 kg. The only abnormality found in the physical examination was unilateral galactorrhea on expression of the right nipple. Prolactin was 24 ng/ml. It was felt that her dominant problem was her obvious depressive state and, after a full and empathic discussion of her condition, she agreed to consult a psychoanalyst.

She returned to see LS only one year later, in May 1991. She claimed that her first visit "made her cry a lot, but was very good for her and changed her life". Meanwhile, she had initiated psychoanalysis. She had been amenorrheic until January 1991 when her gynaecologist gave her bromocriptine (2 x 2.5 mg/day). She still had episodes of binge eating followed by laxatives and her weight was 66.9 kg. Despite taking bromocriptine as prescribed she still had galactorrhea and oligomenorrhea and her prolactin level was 15.8 ng/ml. She was then advised to stop bromocriptine, maintain psychoanalysis and keep in touch. When seen again by LS in July 1992, one year afterwards, she referred that her periods had been regular since October 1991 despite the fact that she was not taking any medication. Her weight was 68.2 kg. Her serum prolactin was 54.7 ng/ml. She had less, but still some, compulsive eating and purging. In November 1992 she had a spontaneous abortion and curettage. In February 1993 she became pregnant again. When last seen in June 1994 she was still nursing

her 7-month-old baby, had not yet restarted her menstrual periods, and her weight was 67 Kg. She was happy and adjusted to her new situation and came to see LS only because she was asked to come for a follow-up visit. Her serum prolactin level was, then, 12.8 ng/ml.

Report by the psychoanalyst (GC)

Helen first contacted GC in October 1990 asking for psychotherapy. She looked very anxious and depressed and weekly sessions proved insufficient. She would show up between sessions, anxious and lost, asking to be received. Classical psychoanalysis three times a week was initiated in February 1991. Initially there was a clear difficulty in trusting the analyst, with hesitation and fear of lying on the couch, suspiciousness about her competence and frequent contacts with other doctors. Later, Helen contacted the Portuguese Psychoanalytical Society to check on GC's credentials.

She was single, living alone and working part-time as a teacher. Apparently, her mother had been unable to take care of her children and both Helen and her sister (born 20 months later) were sent to their maternal grandparents in the first week of their lives. Her parents had little contact with their two daughters until they took care of them when Helen was 12. Her mother was described as very dependent from her own mother and husband, insecure, beautiful, distant and always concerned with her looks. Even though Helen did not live with her mother she was very dependent on her throughout childhood, a dependency re-

inforced later when they came to live together. During the first part of Helen's psychoanalysis her mother was depressed and frequently intruded in her life through constant calls and visits asking for support. She even tried, unsuccessfully, an appointment with GC. One year later she had to be hospitalized for severe depression. Grandmother was described as a strong woman, reassuring but not affectionate, obsessed with stuffing her granddaughters with food. The importance of the alimentary values in her household was so great that Helen's sister rebelled, lost weight and was taken to a doctor who raised suspicions about malnutrition. The sleek Helen was, then, used as evidence that the girls were being appropriately looked after.

The father seemed to be an impatient and sometimes violent man, often beating the daughters. As a child she feared him more than anybody else. Throughout Helen's adolescence he worried a lot about her going out with boys and succeeded in convincing her to stop dating her first true love because of the boy's lower social level. Helen referred to this boy as the only one to whom she ever felt sexually attracted. Progressively, she and her father established a closer relationship though she believed that he appreciated her as a surrogate for his stillborn son, who died before her birth. By then, she had become so thin as to look like a boy. Her father used to praise her for her broad shoulders and narrow hips. Although during Helen's early years there was nothing like an oedipal phase, later in life the father played a significant role in helping freeing her from her mother. This was materially expressed by offering Helen an

apartment where she came to live on her own. After her father's sudden death, 2 years before, her boyfriend, with whom she had been maintaining an unsatisfactory relationship, told her that he would "look after her" through that difficult period. One year later he broke the relationship. This seemed to have had a great emotional impact on her. Amenorrhea and binge eating started almost immediately. She tried to control her weight gain by drinking purging tisanes, which she described as "warm and reassuring".

At the beginning of her analysis Helen started to understand how lonely and without supports she was. Among her friends relations were loose and superficial. Her previous boyfriend still contacted her once in a while, both maintaining an ambiguous situation. Her mother went through a depressive period and depended on her. Her grandmother was often overloaded with work and worries.

During the sessions, when she was very sad or upset, she could not lie down but faced GC as if she had to have a real object in front of her. This and her doubts about the analyst's competence, expressed in the transference, were interpreted as related with the deprivation she suffered of a good enough primary relationship.

Eventually, she became less depressed and more secure. She succeeded in finding another job where she was better paid and that had more to do with her qualifications. The professional success was accompanied by great doubts about herself as a woman. She felt awful about eating too much and gaining weight. The only feminine area where she found herself competent in was motherhood. She

talked with pleasure about having babies and became friendly with young mothers. Dates with other men started but were always short lived and she kept on comparing them unfavourably with the previous boyfriend. Thinking about stopping completely to see him gave place to anxiety. In October 91 she mustered enough courage to have a talk with the boyfriend and it became clear to her then that he no longer wanted to see her. She was very sad but willing to face the situation. The next day she had the first of a series of regular menstrual periods.

After a while she started dating a colleague. He was patient and concerned. He, too, was a lonely person and without much experience with women. Sexual involvement began though she was not very keen on it. She would become excited during petting but excitation would disappear by attempts to penetration. Associative thinking showed some relation with the fear of being beaten by her father, something similar to rape in her mind. Also, her sexual dysfunction seemed related to some difficulty in trusting, in giving herself up to someone, a state of mind re-enacted in the transference as the fear of lying down when feeling more vulnerable. In the summer of 1992 she and her boyfriend decided to live together. In October 92 she became pregnant. This fact brought great joy and anxiety, and she started making plans for motherhood. The pregnancy ended in a spontaneous abortion. The couple was sorry about it but Helen maintained plans for a future baby. In February 1993 she became pregnant again. In April 1993, she asked to decrease the number of sessions. The couple was very enthusiastic

about the baby and made it their priority. By the end of April she decided to interrupt psychoanalysis. She would prefer to have the possibility, if necessary, to come and talk once in a while with the analyst.

After stopping analysis she called first to tell that the pregnancy was proceeding well and, later, to tell that she had a daughter and that she would like to show her to GC. In fact, in March 94 she brought her baby and her mother to GC's office. It was a short talk but she looked happy, the baby was almost 5 months old and well developed, and her mother was helping a lot. The analyst kept the door open for Helen to come back. She was still breast-feeding and believed that it was time she weaned the baby but she was reluctant to do it yet. Meanwhile, she had married and her husband was helping with the baby. Sexual difficulties increased after delivery and the relationship with her husband became less intimate. This situation improved after the fourth month when breast-feeding was reduced to twice daily. From January to May 1995 she resumed treatment on a twice-a-month basis because she feared that the relation with her husband was endangered by her attachment to her daughter. It turned out that she was feeling lonely – the husband was very committed professionally and her mother was not much available – but, by and large, she was being able to handle the situation. Between 1995 and 2000 she attended sessions often only sporadically, but sometimes twice a month. She attributed almost all feelings of unfulfilment to not having a second child, something she wished to do but her husband opposed. Later she realised that other aspects of her life needed

improvement, her job for instance. She was an engineer and wanted to become a teacher. For that purpose she quit her job, and with her mother's financial help did a master degree in Mathematics (as her mother had done). Finally she got a job not far from home and started looking for a new apartment, where there would be enough space for a second baby, although her husband was still rather reluctant. In 2000 GC had to move to another country, but by then she seemed able to face life's challenges on her own.

DISCUSSION AND CONCLUSIONS

It has been reported that pathological hyperprolactinemia occurs preferentially in women primed by paternal deprivation during childhood^(1,5,6,7). The symptoms often appear after a loss⁽⁵⁾. Life events have also been reported to precede the weight gain in women with dynamic obesity⁽²⁾, a condition also associated with higher than control prolactin levels and reduced hypothalamic dopaminergic tone⁽³⁾.

To have a deeper access into the unconscious mechanisms underlying the priming in childhood and the triggering of the symptoms following losses it is important to be able to follow some of these patients in the transferential setting of psychoanalysis. Only a few such cases were reported, two of them before prolactin assays were available^(11,12) and the other one in a woman with an established prolactinoma. The case herein described provided insight into several aspects of the whole process: 1) the importance of the absence of a true oedipal phase; 2) the genesis of the sexual dysfunction; 3) the

genesis of the binge eating; 4) the role of the losses in eliciting a neuroendocrine response when she could no longer cope; 5) the restoring of a normal neuroendocrine state when she became self-confident enough to mourn an unsatisfactory relationship.

This patient, deprived early in life of close contact with her parents, developed the symptoms of amenorrhea, galactorrhea, eating/purging and weight gain when the father whom she "discovered" only at adolescence died suddenly and her boyfriend who was playing a supportive, maternal role, abandoned her. Her mother, due to her own, narcissistic, difficulties could not take care of her, gave her up to her own mother and, in the process, removed the child from close contact with the father. Yet, despite the separation or, maybe, because of it, Helen maintained a strong dependence and submission towards her mother to whom, on the other hand, she was deeply resentful. The consequent difficulties in her process of individuation-separation and in the ability to create a transitional space must have been determinant in her later eating-purging complex as has been described^(13,14). Grandmother does not appear to have been good enough either. One of her visible influences in Helen's personality may have been a built-in association between being compliant, eating and being rewarded. Helen's compulsion to eat was often acted out when she ran directly to grandmother's place and stuffed herself with food after sessions of analysis in which her feelings of emptiness had been tackled.

Later in adolescence she came to be closer to her father, more as a son than as

a daughter. This appears to have been the first close relation she experienced. It seems that the father became somewhat a maternal substitute and very little of an Oedipal figure. By then, she had her first and only upsurge of sexuality in the form of physical attraction to a boyfriend she loved. Her father made her stop to see the boy on the grounds of different social class. She did not dare to uphold the relationship and to oppose him. She would have to face the violent man her father had always been and to risk losing the camaraderie she now had with him. In this process in which the father played successfully both roles of the good cop/bad cop game she waived her sexuality. Since then men in her life have been supportive friends to whom she does not feel sexually attracted. The femininity of this patient became primarily directed towards motherhood. It is clear that a child, she so much wished, would represent, among other things, a way to replay, now under more satisfactory and controlled conditions, her failed early experience as a child.

There are some atypical features in Helen's case. Bulimic behaviour is not characteristic of hyperprolactinemia, even when weight gain is the dominant symptom⁽²⁾. Most hyperprolactinemic women establish a close symbiotic relationship with their mothers in the absence of a father or in the presence of a violent one^(1,4,6). This solution appears to considerably narrow their imagination and their range of coping strategies but, insofar as the mother (or equivalent) is present, it is acceptable to both parties. In Helen's case the urge for an oral "mothering" was compounded by a profound re-

sentiment towards the mother who had abandoned her and to whom she had strong ambivalent feelings. Also operative may have been her grandmother's primary concern with feeding instead of empathizing and the longing for her lost father who praised her ephebic appearance. Another uncommon characteristic of this patient was the fact that she accepted a psychoanalytical treatment. Hyperprolactinemic women often appear depressed but they show little propensity to elaborate conflicts. As reported by Jürgensen, only 2 of 38 of these women to whom psychotherapy was offered accepted the suggestion and neither went beyond the second interview⁽⁶⁾. Our experience is only barely better as exemplified by the present case and a previously published one⁽¹⁵⁾. Helen, too, had some difficulty in representing her inner conflicts as made evident by her psychosomatic response and by acting out her emptiness through binge eating⁽¹³⁾. Yet, her symbiosis with her mother was unsatisfactory and unstable. After all, the father even though mostly absent during her early years could be internalised as an alternative model to her primal depressive one. When confronted with the possibility that her symptoms could be a response of her body to her helplessness she could switch from a biological to a symbolic mode, neurotize her problems and eventually enter psychoanalysis.

Besides remembering and working through conflicts, psychoanalysis made possible the experiencing of a relationship she came to feel as caring and trustworthy and throughout which she could be able to internalize a good object. She could then abandon her symptoms and

give birth to her own child. Her maternal instinct proved to be so overwhelming that she lost, for a while, whatever little sexual interest she had in her husband. Even psychoanalysis became no longer necessary as if both sex and the analyst ceased to be important once her dream – to replace her failed mother-to-child experience by a successful one – came true. However she still needed to work through some identity issues, i.e. who she was, what she wanted from life. An important step then was her identification with the successful aspects of her mother, while criticizing her in other aspects.

From a neuroendocrine point of view this case is also illustrative – the abandon by her boyfriend was followed by amenorrhea, galactorrhea and elevated prolactin levels. Low dosage bromocriptine treatment reduced modestly her prolactin levels and did not restore regular periods. After she broke loose from the sticky, asexual relation with her boyfriend her periods returned even though her prolactin levels were, then, definitely elevated. This suggests that hyperprolactinemia may not have been the only cause of amenorrhea. Switching to a different psychological (and, presumably, neuroendocrine) state restored ovarian function even in the presence of elevated prolactin levels. The subsequent normalization of previously elevated prolactin levels after pregnancy is not uncommon and has been described⁽¹⁶⁾. Normalization of the prolactin levels in idiopathic hyperprolactinemia is common, even in the absence of pregnancy. Therefore, although we believe that the present case contributes to a much-needed understanding of the transduction mechanisms between

external events, ontogenesis, neuroendocrine responses, symptoms and disease, the role, if any, of the treatment on the favourable outcome of the endocrine abnormalities cannot be established.

At another level, this case emphasizes how determinant the first consultation can be in the outcome of psychosomatic conditions. The first physician, an endocrinologist, confronted the patient with her own conflicts and helplessness and provided a unifying model of her personality, behaviour and bodily complaints. As the patient adhered to this approach she was referred to a psychoanalyst. The endocrinologist reassured the patient about the innocence of her bodily symptoms and offered a solid, but peripheral, support. By so doing, this doctor became a strong reference to the patient while, in the same process, she was freed to establish a massive transferential relation with the psychoanalyst. This situation, however unplanned, turned out to be the patient's first opportunity for a healthy triangulation. We believe that her favourable evolution owes much to the fact that she always felt her two doctors as a single supporting unit that provided no room for her to organize defences exploiting competing paradigms or personalities.

Abstract

Even though there is abundant evidence that hyperprolactinemia often depends on psychosomatic factors there are very few studies in which affected patients have been studied under the setting of psychoanalysis. The authors describe the case of a young woman

who presented with eating-purging behaviour, weight gain, amenorrhea, galactorrhea and hyperprolactinemia following the death of her father and abandon by her boyfriend. Psychoanalysis was followed by reversal of the symptoms. This case provides valuable insights into: 1) the importance of the absence of a true oedipal phase in the priming of some women to react with hyperprolactinemia later in life; 2) the mechanisms by which losses can be transduced into the activation of a specific neuroendocrine response; 3) the critical role of the co-operation between the medical specialist and psychoanalyst in the support of patients with psychosomatic disorders.

Key-words: Amenorrhea; Bulimia; Eating disorders; Hyperprolactinemia; Obesity; Prolactin; Psychoanalysis; Psychosomatic medicine.

REFERENCES

1. Sobrinho LG. Neuropsychiatry of prolactin; causes and effects. *Baillière's Clinical Endocrinology and Metabolism* 1991; 5: 119-142.
2. Ferreira MF, Sobrinho LG, Pires JS, Silva MES, Santos MA, Sousa MFF. Endocrine and psychological evaluation of women with recent weight gain. *Psychoneuroendocrinology* 1995; 20: 53-63.
3. Ferreira MF, Sobrinho LG, Santos MA, Sousa MFF, Uvnäs-Moberg K. Weight gain, at least in some women, is an expression of a neuroendocrine state characterized by reduced hypothalamic dopaminergic tone. *Psychoneuroendocrinology* 1998; 23: 1005-13.
4. Nunes MCP, Sobrinho LG, Calhaz-Jorge C, Santos MA, Maurício JC, Sousa MFF. Psychosomatic factors in patients with hyperprolactinemia and/or galactorrhea. *Obstetrics & Gynecology* 1980; 55: 591-5.
5. Sobrinho LG, Nunes MCP, Calhaz-Jorge C, Afonso AM, Pereira MC, Santos MA. Hyperprolactinemia in women with paternal deprivation during childhood. *Obstetrics & Gynecology* 1984; 64: 465-8.
6. Bardé B, Jürgensen O. Psychologische Aspekte der Hyperprolactinämie. In Jürgensen O (ed): *Hyperprolactinämie-Prolaktinome*. Berlin, Springer-Verlag, 1988 pp 134-168.
7. Assies J, Vingerhoets AJJM, Poppelars K. Psychosocial aspects of hyperprolactinemia. *Psychoneuroendocrinology* 1992; 17: 673-679.
8. Sobrinho LG, Simões M, Barbosa L, Raposo JF, Pratas S, Fernandes PL, Santos MA. Cortisol, prolactin and growth hormone responses to emotions elicited during a hypnoidal state. *Psychoneuroendocrinology* 2003; 28: 1-17.
9. Sapolsky RM, Romero LM, Munck AU. How do glucocorticoids influence stress responses? Integrating permissive, suppressive, stimulatory and preparative actions. *End Rev* 2000; 21: 55-89.

10. Theorell T. Prolactin – a hormone that mirrors passiveness in crisis situations. *Integrative Physiological and Behavioral Science* 1992; 27: 32-38.
11. Aruffo RN. Lactation as a denial of separation. *Psychoanal Q* 1971; 40: 100-122.
12. Briebl W, Kulka E. Lactation in a virgin. *Psychoanal Q* 1935; 4: 484-512.
13. Schwartz HJ. Bulimia. Psychoanalytical perspectives. *J Am Psychoanal Assoc* 1986; 34: 439-462.
14. Fine A. Entretien sur la boulimie avec Joyce Mc-Dougall; in Brusset B, Couvreur C (eds): *La boulimie*. Paris, Presses Universitaires de France, 1991 pp 143-151.
15. De Sousa JF, Flores JA, Sobrinho LG. Psychodynamic findings in a woman with a paranoid structure and a macroprolactioma under psychotherapy. *J Psychosom Obstet Gynaecol* 1991; 12: 77-80.
16. Albrecht BH, Betz G. Prolactin-secreting tumors and pregnancy; in Olefsky JM, Robbins RJ (eds): *Prolactinomas*. New York, Churchill Livingstone, 1986 pp 195-218.

