ASHERMAN'S SYNDROME ASSOCIATED WITH HYPO-OVARIA, HYPOTHYROIDISM AND GALACTORRHOEA

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SUMMARY

The authors describe a case of Asherman's syndrome, associated with hypo-ovaria, latent hypothyroidism and galactorrhoea.

The first case of atresia of the uterine cavity consequent upon post-partum instrumental checks was described by Fritsch ([1]) towards the end of the last century. Similar morbid conditions, with various descriptions (uterine atresia, traumatic amenorrhoea, endometrial sclerosis, etc.) were subsequently reported by Bass ([2]) in 1927 and by Stamer ([3]) in 1946.

A few years later Asherman ([4, 5]) defined a classification characterized by intrauterine synechia due to instrumental interference following birth, abortion, or more infrequently after metroplast, myomectomy or caesarean section. Such synechiae, according to Asherman, constitute the cicatricial results of repair processes in areas from which the uterine mucosa has been removed by scraping.

Almost at the same time Hald ([6]) gave an explanation of the radiological pattern of uterine atresia.

After 1950 numerous contributions appeared in the literature on the clinical and biological aspects of this syndrome. According to Musset and Salomon ([7]), the symptomatology consists essentially of menstrual disorders. Asherman says that the patients chiefly consult a gynaecologist because of sterility or repeated abortion; but disorders of the menstrual flow are not lacking, and may have an incidence of 20 % ([8]). The findings are not in agreement concerning the frequency. Asherman has encountered synechiae in 6 % of women who have had scrapes on two or more occasions ([4, 5]); Halbrecht ([9]) reported almost identical figures; Eriksen and Kaestel ([10, 11]), however, reported a frequency of 25 %; and Pinto ([12]) gave a much lower frequency (1.5 %) in 5000 gynaecological patients studied by radiological methods.

It is generally felt that post-traumatic uterine synechiae occur less frequently than reported by Asherman, though he must take the credit for having singled out and separated these clinical forms

from those of infective, chemical or radiological origin.

The hypothesis has recently been put forward that endocrine disorders may have an important part to play in determining post-traumatic synechia ([13]).

The case we shall describe is that of a patient who had Asherman's syndrome associated with normal dwarfism, hypoovaria, latent hypothyroidism and galactorrhoea.

CASE DESCRIPTION

C. F., aged 27, admitted to hospital several times from November 1976 to April 1977.

Family history.

Her sister had a thyroid nodule removed at the age of 14.

Physiological history.

Born at term, normal labour. Breast-fed by her mother. First actions physiologically normal. Her height development was always below the limits of normal, up to the age of 14 when she reached her present height of 137 cm. She reached the Vth primary grade. Menarche at age 12, subsequent menstruation regular in rhythm, quantity and duration. Married at age 22 to an apparently healthy man. One pregnancy in 1973, terminated by caesaren section, during the course of which metroplasty was performed due to a rudimentary uterine horn.

Distant pathological history.

Thyroid nodule removed at age 12.

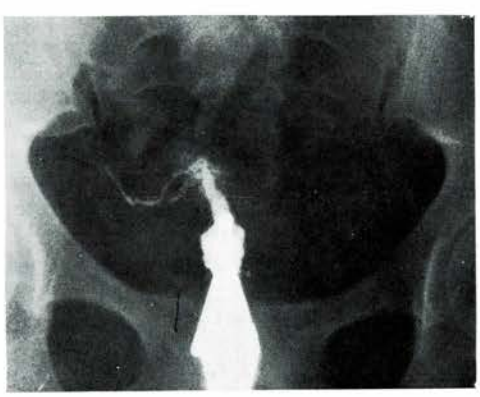

Fig. 1. — Hysterosalpingography. Uterine cavity partly obliterated by multiple synechiae: right tube not visible. Contrast medium scattered through peri-uterine lymph vessels.

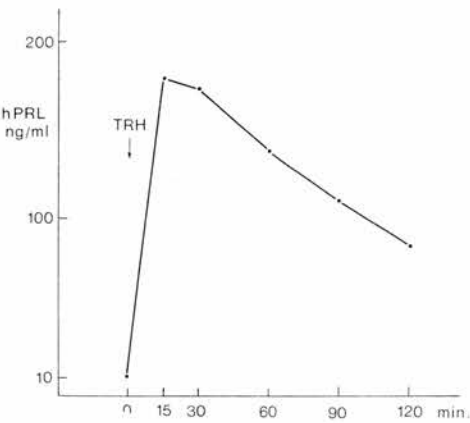

Fig. 2. — Behaviour of prolactin after stimulation with TRH.

Recent pathological history.

During the second week of the puerperium the patient had an instrumental examination because of uterine subinvolution. After six months of amenorrhoea, an oestro-progesterone course of treatment was prescribed for her through several cycles, but without success. Galactorrhoea appeared three years after childbirth and lasted for 3-4 months, and during this time further treatment with oestrogen and progestagens was given, without success. Six months later she was sent to us for observation with a diagnosis of amenorrhoea, previous galactorrhoea and recurrent headache.

Examination.

The patient is a normal midget in appearance. Height 137 cm. Weight 44.5 kg. Secondary sex characters normal. Skin smooth and normally elastic. Subcutaneous fat normally developed. Thyroid: at the isthmus, nodule the size of a cherry-stone, of cystic consistency. Thorax: pleura, lungs and heart: normal findings. Abdomen: organs in hypochondrium within normal limits. Breasts: normally developed, with normally pigmented areolae. Gynaecological findings: external genitalia of nullipara; portio vaginalis cervicis regular, with closed orifice; body of uterus small, hard consistency, with longitudinal axis deviated to right; adnexa uteri not palpable.

TESTS PERFORMED WHILE ADMITTED TO HOSPITAL

Hysterosalpingography.

Very slight expansion of the uterine cavity, of which the morphology was completely altered, with markedly indented outline, especially to-

wards the base, probably due to multiple synechiae: contrast medium has spread to peri-uterine lymph vessels, of which one runs in a right paravertebral direction: tube on right not visible (fig. 1).

Laparoscopy.
Uterus of normal volume and colouring; utero-ovarian ligament and left uterine tube absent; left ovary not visible; on the right the tube was firmly folded upon the body of the uterus with its extremity in Douglas' pouch together with the ovary.

Endometrial biopsy.
Fragments of granulation tissue around material from a foreign body, not birefrangent.

Temperature curve.
Of anovulatory type.

Radiology of skull.
Signs of fronto-parietal hyperostosis and calcification of falx cerebri.

Tomography of sella turcica.
Normal findings.

Visual field.
Normal.

Thyroid scintigraphy.
Accumulation of radioactive drug is limited to the right lobe of the thyroid; thyroid hormones normal.

Laboratory examinations.
Cholesterol, lipaemia, triglycerides, proteinaemia: normal values.

Hormone tests.
T_3: 108 ng/ml T_4: 60 ng/ml.

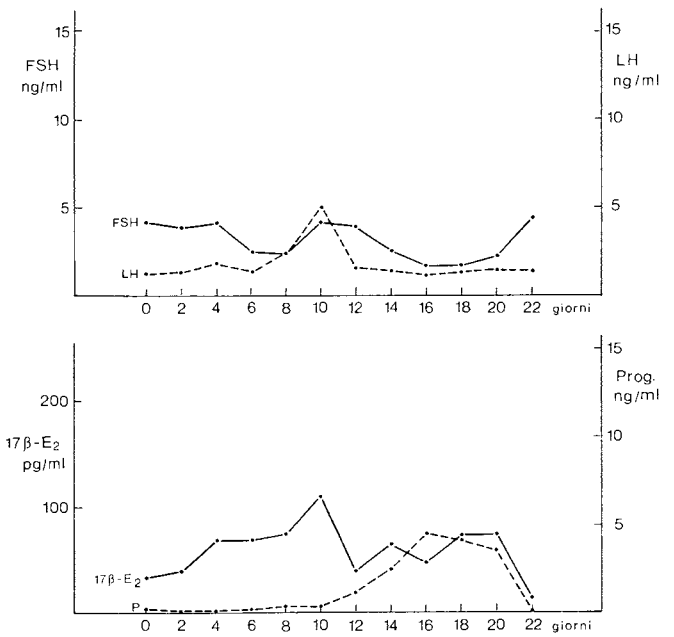

Fig. 3. — Plasma levels of gonadotrophins, oestradiol and progesterone; cyclic progress with values below normal.

TSH: 6.6 ng/ml, more than 32 ng/ml in subsequent samples, after stimulation with TRH.
PRL: values at limits of normal variability; increased pituitary response after stimulation with TRH (fig. 2).
Gonadotrophins, oestrogens and progesterone: cyclic progress with values below normal (fig. 3).

DISCUSSION

The case reported is a typical example of Asherman's syndrome, with synechiae following various operations: caesarean section, metroplasty, instrumental checks

during the puerperium. However, the patient's physique and the previous galactorrhoea suggested to us that the case might be explored from the endocrine point of view, since there could be a correlation with other factors causing the amenorrhoea.

Analysis of prolactin gave basic values within the limits of normal, with a marked increase after stimulation with TRH, expressing the previous pituitary activation (fig. 2). Study of the thyroid function disclosed a state of hypothyroidism, shown by the values of TSH which were above normal, and the exaggerated response to stimulation with TRH ([14]).

In recent years 28 cases have been reported in which hypothyroidism was associated with galactorrhoea ([15, 16, 17]): in about 50 % of cases amenorrhoea was present and in 57 % of cases the galactorrhoea had appeared during the puerperium.

With regard to the pituitary - ovary axis, in the case in question secretion of gonadotrophins and sex steroids, although showing a cyclic pattern was below normal (fig. 3), thus confirming the picture of secondary hypo-ovaria.

It is difficult to say whether this endocrine pattern was merely a concomitant condition or whether it contributed to the onset of amenorrhoea.

Morton ([18]), while recognizing the predominant role of the traumatic and infective factor in the genesis of secondary synechia, has put forward the hypothesis that hormonal factors might facilitate its appearance. Others even admit that an endocrine disorder might in rare cases constitute the sole causal factor of synechiae ([19]).

Nonnis Marzano ([13]) has reported the case of a patient who was subjected to metroplasty because of traumatic synechiae. The operation was followed by a pregnancy interrupted at the 8th month, and 7 months after childbirth the synechiae spontaneously recurred. In this case, there was both before the operation and at the time of recurrence a state of hypo-ovaria with marked increase in weight, headache and vasomotor disorders, and this author therefore considered the hypothesis, that the endometrial hypotrophy, consequent upon the pituitary-ovarian deficit, could have encouraged the atresia of the uterine cavity.

In our case too, as already mentioned, a pathological endocrine state existed, characterized by hypo-ovaria, hypothyroidism and galactorrhoea; and this would lead us to conclude that the pituitary-ovarian deficit might play some part in giving rise to uterine synechiae.

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