

Prolonged retention of fetal bones: intrauterine device and extrauterine disease

S. PANAMA - O. TRIOLO - P. AREZIO

Summary: A case of prolonged retention of fragments of fetal bones is reported in a 47-year-old woman. The pieces of bone, retained in utero for 8 years after an elective abortion, were unexpectedly discovered after total hysterectomy with adnexectomy performed for bilateral pyosalpinx, persistent vaginal discharge and severe pelvic pain.

The role of this rare complication as a cause of infertility is also discussed.

Key words: fetal bone retention; pelvis inflammatory disease; infertility.

INTRODUCTION

Spontaneous intrauterine fetal death and missed abortion have been recorded as causes of prolonged intrauterine retention of parts of fetal bones. This complication is very rare after an abortion by dilatation and curettage and few cases are reported in Literature.

In this paper a case is reported of a patient in whom the bone fragments, retained for 8 years after an elective abortion, were unexpectedly discovered after total hysterectomy with bilateral adnexectomy performed for serious pelvic inflammatory disease and persistent vaginal discharge.

CASE REPORT

D. M., a 47-year-old woman, gravida 3 para 2, was admitted to our Clinic on March 27, 1987, for acute pelvic pain with purulent vaginal discharge. At the time of hospitalization the pulse was 85 b.p.m., the body temperature 38 °C and the blood pressure 130/70 mmHg. She had elective abortion in 1979 at 12 weeks' gestation;

since then, she presented recurrent episodes of abdominal and pelvic pain, meteorism, dysuria, nausea with episodic vomiting, headaches, irregular cycles with dysmenorrhea and intermenstrual bleeding. A diagnosis of pelvic inflammatory disease was made and the patient was treated with antiphlogistic drugs. She presented severe pelvic pain with vaginal purulent discharge and hypertermia for one week. On pelvic examination, the uterus was twice its normal size, painful at palpation. The pelvic ultrasonogram showed intrauterine areas of hyperechogenicity and bilateral adnexial masses, with the possibility of hydrosalpinx.

After a ten-day treatment with antibiotics the patient underwent laparotomy which revealed pyosalpinx with extensive pelvic adhesions. Total hysterectomy with bilateral adnexectomy was performed and adhesiolysis. At the cutting, the uterine cavity appeared closely packed with several fragments with a tubular and lamellar structure of white appearance which, at stereomicroscopic examination, proved to be pieces of bone of fetal origin (fig. 1 a, b).

The patient had an uneventful postoperative recovery and was discharged ten days later.

DISCUSSION

Pathological bleeding, pelvic inflammatory disease, uterine perforation and synechiae, cervical injury have been widely

described as being the major complications of therapeutic or induced abortion.

The retention of fetal bone fragments has generally been described following endouterine fetal death, or as a consequence of abortive practices. On the contrary, a similar complication is very rare after elective abortion, carried out with regular cervical dilatation and curettage, even if, however, it is thought that the cases reported are fewer than the effective ones. The bone fragments withheld in the ca-

tory disease. The serious and sometimes definitive compromise of the anatomic-functional integrity of the reproductive apparatus, and therefore the onset of secondary infertility, generally constitutes the reason that urges the patient to consult a gynecologist. In these cases, the diagnostic picture may be difficult, and often even a special study, such as laparoscopy and ultrasonography, may not succeed in being definitely resolutive. The salpingochromoscopy and the hysterosal-

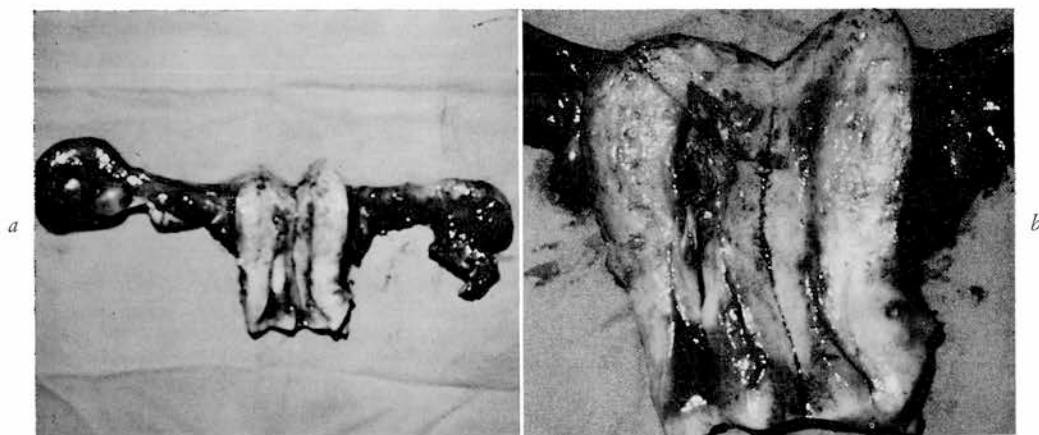


Fig. 1. — Uterus with adnexa showing bilateral pyosalpinx (a) and the fetal bone fragments embedded in the fundus (b).

vity, mechanically stimulating the uterine contractility are embedded with their points in the same myometrium, and therefore their spontaneous expulsion becomes more and more unlikely. For this reason, they exercise an action that is completely analogous to the intrauterine device, determining, especially if situated at a fundal level, an increase of the local incretion of prostaglandins which hinders the blastocyst implantation⁽¹⁾. Besides, the fetal bones constitute an ideal substrate for bacterial colonization, which, from the uterine cavity can spread progressively to the tubes and to the adjacent structures, showing a typical picture of pelvic inflamma-

pingography are useful for ascertaining the tubal patency, but the typical image, with the filling defects of the uterine cavity, may sometimes be mistaken for the Asherman syndrome⁽²⁾. Hysteroscopy can be very useful in similar cases in that, besides permitting the identification of the bone fragments, it constitutes a valid aid for their complete removal and a perfect cleansing of the uterine cavity⁽³⁾.

The quoad functionem prognosis obviously depends mainly on the tubal anatomic-functional compromise: it can be good whenever the tubes are regularly patent, as in the case reported by Dajani *et al.* (1985) in which, after accurate removal

of the bone fragments with the hysteroscopic guide, withheld for 33 months, a spontaneous pregnancy was obtained after three months, resulting in a natural birth at termination.

In the case observed by us, the retention of bone fragments continued for quite a prolonged period, probably on account of the lack of will on the patient's part to have children: this permitted the infective process which had not been adequately treated to begin to spread and to seriously and irreversibly damage the reproductive apparatus, thus rendering a destructive operation necessary.

In conclusion, it is necessary to confirm that similar situations, the frequency of which is probably higher than is assumed,

must be taken into consideration as possible etiopathogenic factors of infertility, even if remote, in those cases with previous abortion in anamnesis, so as to be able to intervene in a rapid and adequate manner.

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Address reprint requests to:

Dr. O. TRIOLO
Via Placida, 80
98100 Messina