Undiagnosed and untreated hypogonadotropic hypogonadism may be a cause of long-standing amenorrhea and infertility. We report the case of a forty-year old Moroccan self-referred patient with primary amenorrhea that presented to our infertility clinic seeking a pregnancy. The patient had never been subjected to testing for this problem. The only investigation that she had undergone, some years earlier in her country of origin, was a laparoscopy, of which she had video documentation, showing a hypoplastic uterus and the presence of both Fallopian tubes and both ovaries. Physical examination revealed incomplete pubertal development (Tanner stage 2). Gynecological examination revealed infantile external and internal genitalia. Transvaginal ultrasound revealed a very small uterus (volume 2.51 cm³), no visible endometrium, very small ovaries (mean volume: 0.98 cm³) presenting no antral follicles. These findings, in addition to hormonal assessment showing consistently low serum FSH, LH, estradiol, normal karyotype, negative brain MRI scan, and the absence of anosmia, suggested a condition of idiopathic hypogonadotropic hypogonadism. General blood tests and mammogram were normal. Estrogen priming of the uterus was performed using increasing doses of transdermal estradiol and, subsequently, an oral estrogen-progestin combination, once endometrium reached a thickness of 12 mm. Normal withdrawal bleeding occurred with the estrogen-progestin combination. After 12 months, the uterus reached a normal adult volume of 58.45 cm³, while the ovaries presented a mean volume of 1.29 cm³. At this point, after having assessed tubal patency by hysterosalpingogram and normal male partner semen production, ovulation induction was attempted. Ovarian stimulation was performed using highly purified naturally derived gonadotropins (FSH 225 IU plus LH 75 IU/day). After 5 cycles of gonadotropin stimulation using quantities of 2250-2700 IU of FSH and 750-900 IU of LH/cycle, all of which yielded 2 to 3 follicles/cycle, a viable pregnancy was obtained. The patient has now reached 26 weeks of gestational age and her pregnancy is evolving normally. To our knowledge this is the first report in the literature of successful treatment of infertility associated to primary amenorrhea in a patient over the age of forty.