

CORRESPONDENCE

TREATMENT OF MENSTRUATION- ASSOCIATED RECURRENCE OF HEREDITARY PANCREATITIS WITH PHARMACOLOGICAL OVARIAN SUPPRESSION

To the Editor:

Almost 30 years ago, it was recognized that the exocrine pancreas is responsive to estrogen. It has remained unknown whether this observation has clinical or pathophysiological relevance beyond the occasional cases of drug-induced pancreatitis in women who take estrogen for hormone replacement therapy or as oral contraceptives (1,2). We report a patient who had a hereditary variety of the disease, whose episodes of pancreatitis closely paralleled her menstrual cycle over several years, and whose recurrence of pancreatitis dramatically subsided in response to pharmacological ovarian suppression.

A 17-year-old girl was admitted to our outpatient department because of recurrent episodes of acute pancreatitis that coincided with the onset of her menstrual cycle. Over 4 years, these episodes of menstruation-associated pancreatitis (serum lipase level >3000 U/L) led to 14 hospital admissions, and they coincided with the 28-day menstrual cycle consistently during the last 5 months. The girl had been adopted as an infant and was not related to her legal parents and sib-

lings. Gynecological and ultrasound examinations revealed no abnormalities, and intra- or retroperitoneal endometriosis was excluded by diagnostic laparoscopy and computed tomography. In the absence of other risk factors for pancreatitis and because of her age, informed consent for genetic testing was obtained. A mutation in the cationic trypsinogen gene (PRSS1, R122H) that is commonly associated with hereditary pancreatitis (3) was found. Because of the strong association between the episodes of pancreatitis and the onset of menstruation, we sought to suppress ovarian function with continuous pharmacological hormone therapy (0.03 mg of ethinylestradiol and 2 mg of dienogest administered daily).

The patient reported no adverse effects, and her menstrual cycles ceased. She continued hormone treatment for 3.5 months, which she then stopped for personal reasons. Subsequently, she experienced another mild episode of pancreatitis (elevated serum lipase level of 400 U/L) that did not require hospitalization. After this episode, she resumed hormone treatment and has remained symptom free.

Our patient suffers from hereditary pancreatitis, a genetically defined variety of the disease that is associated with germ line mutations in the cationic trypsinogen gene (3,4). Due to the mutation, trypsinogen is structurally altered, and pancreatitis attacks could be triggered in affected patients by a stimulus that is physiologic for the healthy pancreas but disease caus-

ing in carriers of trypsinogen mutations (5). Estrogen, which is known to alter the response of the exocrine pancreas to physiological and pathological stimuli (6), may explain the association between the onset of menstruation and the recurrence of pancreatitis in our patient. A pharmacological suppression of ovarian function, on the other hand, appears to be a promising and safe treatment strategy in women with menstruation-associated episodes of pancreatitis.

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