

### Low-back pain in adolescents: consider haematocolpometra by imperforate hymen in the case of a premenarchal girl

Sirs,

Imperforate hymen with a prevalence of 0.1% to 1.2% of female newborns is a rare congenital abnormality of the premenarchal girl (1, 2). After the neonatal period, the first manifestations appear in the pubertal age in the form of a collection of menstrual blood in the vagina that is haematocolpos, or in the uterus that is haematometra. Their association is termed haematocolpometra. Abdominal pains, constipation or urinary retention are the classical manifestations (3, 4). We report a rare case of haematocolpometra by imperforate hymen in an adolescent girl presenting with low-back pain (LBP). A 14-year-old girl presented an isolated intermittent and mechanical LBP evolving for 10 months. The LBP was exacerbated by cough and defecation. At the beginning of the symptoms, in spite of the reduction of a heavy school bag and the correction of bad posture advocated by the paediatrician, the pains reproduced monthly. Cyclic pelvic pains evolving for three months had joined the LBP. The adolescent had not had her first menses yet whereas her younger sister of 12 years old had already had hers. She denied previous sexual activity in her past medical history. The lumbar spine was painful in flexion. Palpation did not reveal pain. The Lasegue sign was negative, but exacerbated the lumbar and pelvic pains. There were no neurologic signs. Secondary sexual characteristics were at Tanner stage 4. The hypogastrium was painful and presented a round and tender pubic mass. Haemogram, erythrocyte rate sedimentation and a plain radiograph of the lumbar were normal. Pelvic ultrasonography showed a haematocolpometra without another associated abnormality. Afterwards, clinical examination

of the vulva revealed a bluish bulging imperforate hymen. Then a hymenotomy and drainage of 850 ml of old dark menstrual blood were performed without incident and the symptoms resolved completely within three days. At follow-up six months later, the patient was symptom-free with a well-healed hymen and regular menses for five months.

LBP as manifestations of a haematocolpos or a haematocolpometra by imperforate hymen are rare. Their incidence is estimated at one case out of 30 patients who have this congenital abnormality (5). Previous cases were reported by paediatricians, paediatric surgeons or orthopaedic surgeons (5-8). To our knowledge, the present case is the first one reported by rheumatologists. We note that the presence of mechanical factors such as school bag weight and bad posture can delay the diagnosis as it was the case at the time of the first visits to the paediatrician. The exacerbation of the LBP by cough, defecation or micturition appears classical (5, 6). Physical examination is marked by a lumbar spine pain in flexion or at the time of Lasegue sign and sometimes a sciatica (5, 7, 8). The mechanism is a compression of the sacral plexus by a posterior development of the haematocolpometra (5). The diagnosis of imperforate hymen is made by perineal examination. Pelvic or transrectal ultrasonography highlights the haematocolpometra and eliminates other etiologies such as a congenital partial absence of the vagina (9, 10). The clinical manifestations are generally chronic, but they can be acute symptoms simulating emergency surgery, especially when it is a question of lower abdominal or pelvic pains (4). The treatment of the haematocolpometra by imperforate hymen consists of doing a hymenotomy with drainage of the menstrual blood. The evidence of the relationship between the haematocolpometra and the symptoms is their resolution, as in our case.

We conclude that haematocolpometra by

imperforate hymen should be considered in the differential diagnosis of low back pain in adolescent girls.

J.C. DABOIKO, MD  
M. GBANÉ-KONÉ, MD  
B. OUATTARA, MD

From the Department of Rheumatology, Teaching Hospital of Cocody, Abidjan, Côte d'Ivoire, West Africa.

Address correspondence and reprint requests to: Dr Jean Claude Daboiko, BP 441 cedex 03, Abidjan, Côte d'Ivoire.

E-mail: daboiko3fjc@yahoo.fr

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