**Case Communications**

**Retroareolar Leiomyoma of the Male Breast**

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**Key words:** retroareolar leiomyoma, nipple leiomyoma, breast leiomyoma

Leiomyoma is a benign smooth-muscle tumor originating in most cases in the genitourinary or gastrointestinal tract. There are three distinct histopathologic types of cutaneous leiomyomas: piloleiomyomas, angioleiomyomas, and genital leiomyomas. Leiomyomas that derive from the dartos muscle of the scrotum and the labia majora, as well as those from the erectile muscle of the nipple (muscularis mammillae) are classified as genital leiomyomas.

Leiomyoma originating in the nipple region is an extremely rare entity. Moreover, because of its low morbidity most cases go unreported. In one of the largest reviews in the English-language medical literature in 1989, only 19 cases of leiomyoma involving the nipple or areola were identified, of which 4 were in men [1]. A few isolated case reports have been published since then [2–4], most of them describing leiomyomas in the female breast. We present a new case of leiomyoma occurring in the retroareolar region in a young man.

**Patient Description**

A 23 year old man was referred to our institution for local excision of a small nodule in the left breast. He had been complaining of itching in this area for several months. Examination of the left breast revealed a nodule in the radius of 11–12 o'clock, behind the areola. The nodule, 1 cm in diameter, was well-circumscribed, firm and movable lesion. No evidence of ulceration was noted. Physical examination of the right breast revealed a similar nodular lesion behind the areola, measuring 0.5 cm. This lesion was asymptomatic. There was no gynecomastia, axillary or supraclavicular lymphadenopathy on either side.

The lesion on the left side was excised under local anesthesia. A small, firm, white-colored 1.2 cm nodule was found behind the areola, adherent to the skin from above and loosely attached to the chest wall fascia from behind.

The histopathologic examination of the specimen showed features typical of leiomyoma – namely, proliferation of smooth-muscle bundles without cellular atypia or nuclear pleomorphism. Figures A and B).

**Comment**

Virchow, the eminent 19th century German pathologist, stated: "Die Mamma ist die Amme der Geschwülste Lehre" (The breast is the wet-nurse of the student of tumor) because so many different types of neoplasms develop within it. Leiomyomas occurring outside the uterus and gastrointestinal tract are, at best, infrequent. Those arising in the nipple are extremely rare. There is a well-developed layer of smooth muscle in the corium of the areola from which leiomyoma might arise. Contraction of these muscularis mammillae may be noticed upon stimulation of the nipple.

We observed and report here one example of this type of leiomyoma in a young male. Although benign neoplasms in skin and subcutaneous tissue over the breast are innocent, they may be misdiagnosed clinically as primary breast carcinoma [5]. Carcinoma of the male breast is a rare disease and must be distinguished from several much more frequent and entirely harmless lesions. The most frequent of these is the adolescent type of benign hypertrophy of the breast, true gynecomastia, and hypertrophy of the breast due to liver disease, medications or of idiopathic origin. Lipomas and sebaceous cysts are frequent and may occur in either sex. Other lesions in the...
male breast, such as fibromyas and leiomyomas, are much less common but should also be considered in the differential diagnosis.

References

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Persistent Plastic Bronchitis in a Child after Cardiac Surgery

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Key words: plastic bronchitis, children, bronchoscopy, Fontan procedure

Plastic bronchitis is a rare clinical entity that occurs as a complication of asthma, allergy, respiratory tract infections, cystic fibrosis, sickle cell disease, pericarditis and congenital heart defects [1,2]. Most cases related to cardiac defects are reported to have occurred after corrective surgery, mainly the Fontan procedure [1-3]. The Fontan procedure creates a direct connection between the systemic venous circulation, most frequently the superior and inferior vena cava, and the pulmonary artery. Plastic bronchitis presents with severe respiratory distress and is usually diagnosed when white casts are expectorated or detected by bronchoscopy [1]. We describe a patient who developed fatal plastic bronchitis after undergoing the Fontan procedure for repair of tricuspid atresia.

Patient Description
A 6 year old girl was born with a cyanotic heart defect that was neither diagnosed nor treated in her country of birth. Until the age of 3 years she suffered from chronic hypoxia, which was the probable cause of her mild psychomotor retardation. At age 3, immediately after she immigrated to Israel, she was diagnosed as suffering from tricuspid atresia with a single ventricle. During the next 3 years she underwent a series of operations: a right modified Blalock-Taussig procedure, placement of an aortopulmonary shunt, placement of a bidirectional Glenn shunt, and finally, the Fontan procedure. After her last surgery she developed pneumonia in the right lung, atelectasis of the left lung, and chylothorax, all of which resolved. She also sustained permanent paralysis of her right diaphragm. Echocardiography revealed normal left ventricle function, mild mitral regurgitation, and good flow through the Fontan conduit. She was discharged home in good condition and treated with diuretics and coumadin.

Two months after being discharged and 3 months after undergoing the Fontan procedure, she arrived at the pediatric emergency room of our hospital with severe dyspnea and cyanosis. According to her parents' report she developed a cough 2 weeks previously. She was afebrile, her respiratory rate was 60 per minute and blood pressure 120/80. Oxygen saturation on room air was 50%, and 88-90% with an oxygen mask. On auscultation, breath sounds were reduced over the right lung field. No clinical signs of heart failure, significant abdominal findings or clubbing were noted. A complete blood count revealed a white blood cell count of 15,600 with 89% neutrophils, and hemoglobin and platelets within the normal range. There was no infiltrate, atelectasis or hyperinflation on the chest X-ray, but the right diaphragm was elevated.

She was hospitalized in the pediatric intensive care unit and initially treated with oxygen, chest physiotherapy, bronchodilators and intravenous antibiotics. The next day her condition improved significantly and she was transferred to the pediatric ward. Four days later her respiratory rate worsened and she was returned to the pediatric intensive care unit. Chest X-ray showed partial atelectasis of the right lung. Emergency flexible bronchoscopy demonstrated a cast blocking the entrance to the right main bronchus, which was immedi-