Umbilical epidermoid cyst: an unusual cause of umbilical symptoms

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In addition to the most likely diagnoses for umbilical signs in adults (i.e., umbilical hernia, metastatic tumour, endometriosis, congenital abnormalities and gallstones retained or spilled at the umbilicus), the differential diagnosis should include epidermoid cyst arising from the skin of the umbilicus. Indeed, to determine the most appropriate treatment for patients with umbilical signs or symptoms, physicians should be aware that deep-seated epidermoid cysts may occur at the umbilicus and that these cysts may extend below the midline fascia. On the basis of our observations reported here and those reported elsewhere,[1–4] at our institution, we believe that these cysts must be completely excised. We have not encountered any recurrence with this treatment. This communication describes 7 patients with symptoms resulting from an epidermoid cyst of the umbilicus.

Patients and treatment

Between 1984 and 2001, 7 patients (2 male, 5 female), ranging in age from 9 to 57 years, were treated at our facility for brief or long-standing umbilical signs or symptoms resulting from an epidermoid cyst (Table 1). Five of these patients had umbilical pain, which in several patients radiated away from the umbilicus. Four patients had a palpable mass; 4 had umbilical redness. Two patients had umbilical drainage that was described as having the odour of sebum. Use of cotton swabs and good lighting sometimes enabled us to see a punctum or to extract sebaceous material from the depths of the umbilicus.

Six patients were treated surgically. Where possible, the cyst was completely excised with a small piece of skin attached. This excision was more difficult in patients with active infection. In 2 patients, the major component of the epidermoid cyst was located below the fascia and communicated with the skin through a tiny fascial opening. In 1 patient, thrombophlebitis of a superficial inferior epigastric vein developed in the right lower quadrant secondary to infection.

Discussion

In most patients having umbilical symptoms who seek medical attention, an umbilical hernia is diagnosed. We have previously reported our experience treating pilonidal sinus disease of the umbilicus[1] and have treated patients with suture granuloma, endometriosis, and urachal and omphalomesenteric anomalies. In a review of umbilical inflammatory conditions, Goldberg and associates[2] classified these conditions as primary or secondary and also discussed urachal and

Table 1

Characteristics of 7 Patients Treated for Umbilical Signs or Symptoms Caused by Epidermoid Cyst, 1984–2001

Year	Age, yr	Sex	Duration of signs/symptoms	Pain	Mass	Redness	Drainage	Location	Treatment
1984	30	M	n/a	Yes	No	Yes	n/a	Below fascia	Excision
1993	52	F	Years	No	Yes	No	No	Above fascia	Excision
1994	39	F	1 d	Yes	Yes	Yes	No	Above fascia	Excision
1997	30	F	Months	Yes	Yes	Yes	Yes	Below fascia	Excision
2000	57	F	Weeks	Yes	No	No	Yes	Above fascia	Antibiotics
2000	51	M	2 wk	Yes	No	Yes	No	Above fascia	Excision
2001	9	F	1 yr	No	Yes	No	No	Above fascia	Excision

n/a = not available.

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omphalomesenteric abnormalities, umbilical polyps, primary omphalitis, pilonidal sinus, primary umbilical carcinoma and inflammation secondary to intra-abdominal or retroperitoneal infection. However, they did not mention infected epidermoid cyst in their list of causes of umbilical inflammation. Molderez and colleagues[3] described a series of 22 patients with umbilical discharge. Among 17 patients who had umbilical discharge of previously undetermined cause, discharge in 10 was found to result from a condition of embryologic origin. In 1 patient, umbilical discharge was caused by a sebaceous cyst.[3] Cullen's textbook of diseases of the umbilicus and urachus,[4] published in 1916, described walnut-sized dermoid (or atheromatous) cysts of the umbilicus reported in only 5 patients. This text stated the following: these cysts originate from the umbilicus; they contain sebaceous material that yields epithelial calls, fat droplets and cholesterin crystals; they are lined by squamous epithelium; and they do not contain hair. We recommend complete excision of epidermoid cysts. We have not seen recurrence with that treatment.

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