

UMBILICAL CONCRETIONS

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Although lesions of the umbilicus are not common, they have received scant attention in the literature. Two cases recently came under my observation within a few weeks of each other and were of sufficient interest to report briefly. In each case an umbilical concretion was responsible for the patient's symptoms, and prompt and complete relief was afforded by simple removal of the foreign substance.

CASE REPORTS

Case 1: A 24 year old student came into the Clinic in December, 1940, to consult the dermatologist. He complained of soreness and tenderness of the umbilicus, which had been present for several days and was becoming worse. More recently he had noted some discharge from the umbilicus. He had never had any previous symptoms and his general health had always been good. The history of the systems was without significance.

The general physical examination was essentially normal. A thin watery discharge was observed exuding from the umbilicus, which was rather deep with considerable redness and edema at the bottom. Manipulation attendant to examination was quite painful. There was some tenderness surrounding the umbilicus. The original impression of the examiner was patent urachus, and the area was painted with gentian violet.

One week later the patient stated that he was much better, and the same treatment was applied. He returned in another week, however, and complained of greater discomfort and more discharge. A culture for yeast was taken, which was later reported negative, and 100 r of roentgen therapy was given.

Examination at the time of a subsequent treatment two days later revealed a small papillomatous lesion with superficial erosion upon the surface, located deep in the umbilicus. I was consulted at this time, and observed that in addition to the papillomatous lesion there was considerable redness, edema, and pronounced tenderness which partially interfered with adequate examination. Examination under anesthesia was advised to permit more complete inspection and also for biopsy.

The patient entered the hospital and was given intravenous sodium pentothal anesthesia. Upon separating the umbilicus with a small ear speculum, some dark gray material was observed very deep in the umbilicus beyond a very small fibrotic opening. After dilating this fibrotic ring, a mass of hair and gritty material held together by sebaceous material was removed piecemeal. The entire concretion was about the size of a large olive seed and when removed, left a deep cavity extending downward. Following the removal of the concretion, a small piece of the papillomatous lesion was taken for biopsy, a section of which showed only a well-marked inflammatory reaction, but no evidence of neoplasm.

The patient had an uneventful convalescence; the lesion healed completely; and he has remained well since that time.

Case 2: A housewife, 44 years of age, came into the Clinic for examination for "heart trouble", and the lesion to be reported here was incidental to her chief complaint.

For three years she had observed recurrent attacks of itching about the umbilicus, followed by the formation of a small "blister" which would rupture and drain. Occasionally she had been able to express a small amount of pus from the depth of the umbilicus, which was associated with some tenderness. The last attack had occurred about one week previously, and a small amount of discharge was still present. A patent urachus was suspected, and she was referred for further study.

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Examination revealed a deep, narrow umbilicus from which a small amount of thin, ill-smelling, seropurulent discharge exuded. Some redness and deep tenderness was observed and on carefully separating the walls of the umbilicus with narrow retractors, a small grayish concretion the size of a large grape seed was brought into view. The concretion consisted chiefly of sebaceous material and gritty foreign particles with epithelial cells. Complete removal relieved the patient from further symptoms from this source.

DISCUSSION

Concretions may be considered one of the more common lesions of the umbilicus. They probably occur only in the deep, narrow type of umbilicus, and this anatomical fault is thus a predisposing factor. A foreign body such as cotton or wool fibers, hair, powder, dust, etc. settles in the deeper portion and sets up an irritation. Nature responds by secreting sebaceous material and forming epithelial cells which are cast off and increase the mass. Later, inflammatory changes may produce a stenosis of the opening, and imprison the concretion which gradually increases in size because it cannot possibly be extruded through the opening. Finally, the extensive irritation leads to severe inflammatory changes, and the patient seeks relief. This lesion does not imply uncleanness, as it may occur in very meticulous individuals.

The concretions vary greatly in size from that of a pea to a pigeon's egg. They usually contain hair and cloth fibers, as well as gritty, sandy particles bound together with caseous, sebaceous material containing desquamated epithelial cells. Other foreign bodies such as stone fragments, beads, etc. may settle in the umbilicus and serve as the nucleus of a concretion.

The two most common presenting symptoms are pain and discharge from the umbilicus. According to the intensity of the inflammatory process, the pain varies from mild pain and tenderness, to severe pain, swelling and fever associated with abscess formation. The periodic discharge of a thin serous or seropurulent secretion should always lead one to suspect this lesion.

Examination may be relatively insignificant, and the true nature of the condition be overlooked. Concretions may lie very deep, and the opening may be so small as to prevent visualization of the concretion. The swelling may be slight and cases have been reported in which the swelling was some distance from the umbilical depression. Some discharge which is usually malodorous is almost invariably present.

Several factors may be considered in the differential diagnosis. As in our first case, tumor was suspected, and these cases have been mistaken for cancer. They may simulate any inflammatory lesion such as tuberculosis or syphilis, both of which are exceedingly rare. Because of the presence of caseous material, some early cases are misdiagnosed as tuberculosis. Also, those containing quantities of hair have been errone-

ously reported as dermoids. Adequate exposure and inspection of the umbilicus, under anesthesia if necessary, is essential, and the presence of a quantity of sebaceous material clinches the diagnosis.

The treatment consists in dilating the opening and thoroughly removing the concretion. Surgical excision of the sac is not necessary. Recurrence, although possible, is not often observed and probably the associated inflammatory reaction obliterates the cavity. Moreover, the patient who has had one concretion is thereafter very vigilant and careful about umbilical cleanliness, which undoubtedly is a large factor in the rarity of recurrence.

CONCLUSIONS

Two illustrative cases have been briefly presented which have described umbilical concretions as a cause of pain, tenderness, and discharge from the umbilicus.

The diagnosis depends upon careful exposure of the umbilicus and inspection of the deepest recesses of the umbilical depression, which in certain instances may require anesthesia because of the pain and tenderness attendant to the examination.

Treatment consists of simple removal of the concretion which was promptly followed by complete cure in both the cases here reported.