



Omphalectomy Without Neoumbilicoplasty for Rare Progressive Umbilical Granuloma & Para Umbilical Sinuses in Adult: An Unusual Surgical Scenario

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Abstract:

Umbilical discharge because of granuloma is a usual complaint in infants and children whereas in adults, it is rare. The most common cause of discharge in children is umbilical granuloma, persistent vitello-intestinal duct or persistent allantois anomalies. In adult's pilonidal sinus and abscess are most common. We report a case of 40-year male with history of untreated umbilical swelling from 2 months, presenting as distorted umbilicus & purulent discharging sinuses from paraumbilical area. Ultrasound showed multiple intercommunicating sinus tracts. Patient was planned for sinus scraping with exploration. Intra operative period, sub umbilical region was completely encased with pus and one sinus tract was extending 1.5cm above attachment of umbilical cicatrix. So, in view to prevent further spread of infection in both cutaneous and intraabdominal region, omphalectomy without neoumbilicoplasty was considered best option. Post-operative period was uneventful and histopathology report confirmed foreign body granuloma

Keywords: omphalectomy, umbilical granuloma, para-umbilical sinus

INTRODUCTION

CASE REPORT:

A 40-year male patient came to our opd with complaints of umbilical discharge with distorted shape of umbilicus from 2 months, aggravated from 15 days. No history of diabetes mellitus, hypertension, tuberculosis, malignancy, excessive hair growth, previous operations or skin disorders. Clinical

inspection showed multiple sinus tracts around umbilicus with active purulent discharge. Induration was present around umbilical region. Umbilicus shape was distorted and blackening noted over skin of umbilicus. Cough impulse was absent. Abdomen examination was normal. No previous operative scar or skin changes noted. On admission vitals were stable.

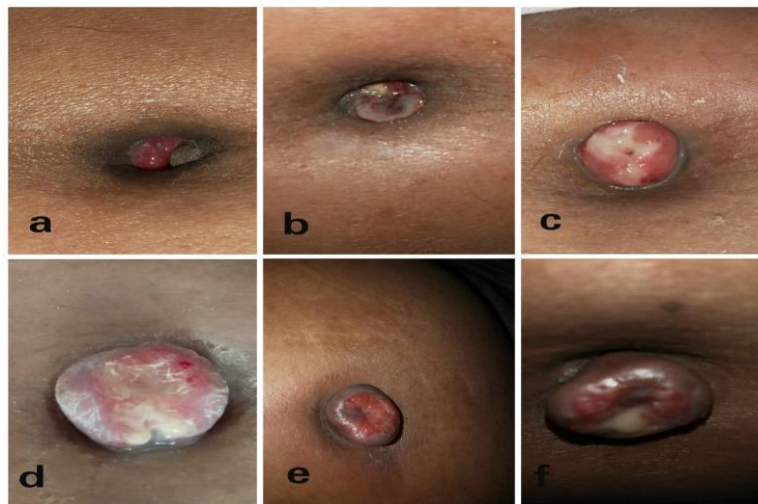


Figure 1: Progression of umbilical swelling from 2 months before admission. (a,b) initially looks like adenoma, c-f progressed to infected umbilical granuloma (pic courtesy: patient himself)



Figure 2a



Figure 2b

Figure 2a: Patient presented to us with distorted umbilicus and multiple pus discharging para-umbilical sinuses-

Figure 2b: post-operative follow up upto 6 months with no recurrence

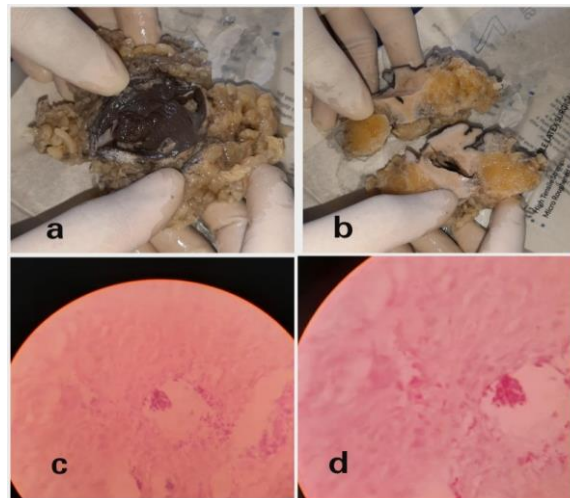


Figure 3: (a,b) shows cut section of excised specimen of size 8cm x3cm x7 cms having small black cystic areas & yellow fatty tissues. (c,d) shows foreign body granuloma in Centre with lymphocyte aggregates around it

Investigations:

Hematological parameters such as complete blood count, renal function test, and liver function test were within normal limits. Tuberculin skin test (mantoux test) was negative.

Radiological investigations - Chest x-ray was normal. Ultrasound showed multiple intercommunicating sinus tracts, around 3-4 cm long extending up to subcutaneous plane. Plain MRI abdomen showed infective aetiology changes in subcutaneous plane around umbilicus with no evidence of sinus tracts communication to abdomen and no evidence of vitello intestinal or allantois anomalies. Hence diagnosis was made as multiple para-umbilical discharging sinuses secondary to infected umbilical granuloma.

Surgical procedure:

Patient was planned for sinus scraping with exploration under spinal anaesthesia. Sinus tracts were explored and debris were removed. While probe insertion, one of the sinus tracts was extending approx.

1.5cm above base of umbilical cicatrix. So in view to prevent recurrent abscess, recurrent sinus tracts and dangerous complications like entero cutaneous fistulas, omphalectomy was considered as best choice & was performed with patients consent. Elliptical incision was taken around umbilicus. Umbilicus was dissected up to attachment to anterior rectus sheath and omphalectomy was done. Neoumbilicoplasty was not performed in view of local or post op wound infection. Drain was kept in situ and was removed on post-operative day 3. Post-operative period was uneventful. Specimen was sent for histopathology examination and diagnosis was made as umbilical foreign body granuloma.

DISCUSSION:

Diseases of umbilicus are unique in nature. Umbilical discharges are most common in neonates and pediatric age group. In adults it is rare. Here we have compiled & enlisted various umbilical disorders presenting as swellings and discharges:

UMBILICAL DISORDERS
<ul style="list-style-type: none"> ❖ Pediatric Age Group: ❑ Persistent allantois anomalies: <ul style="list-style-type: none"> ▪ Patent urachus (urachal fistula) ▪ Urachal sinus ▪ Urachal cyst ▪ Urachal diverticulum ❑ Persistent vitello-intestinal duct anomalies <ul style="list-style-type: none"> ▪ Infected umbilical adenoma and polyp ▪ Umbilical sinus ▪ Umbilical cyst ▪ Entero cutaneous fistula (rare) ❑ Others: (5) <ul style="list-style-type: none"> ▪ Omphalitis ▪ Umbilical granuloma
<ul style="list-style-type: none"> ❖ Causes Of Umbilical Discharge In Adults: ❑ Common: <ul style="list-style-type: none"> ▪ Pilonidal sinus (7)

- Infection due to hair tufts and foreign bodies, rarely lint ball omphalitis (9)
- Non-specific acute and chronic inflammation (omphalitis)
- Abscess of the umbilicus (7)
- Hydra adenitis supparativa of umbilicus (6)
- Umbilical hernia with skin ulceration
- **Rare:**
 - Laparoscopic umbilical port site infection, secondary abscess and rarely port site metastasis.
 - Patent urachal or vitello intestinal anomalies (7)
 - Metastasis from various carcinomas like stomach, urinary bladder (4) , gall bladder (7), ovarian [papillary serous cystadenocarcinoma](4), colo-rectal adenocarcinoma(4). (sistermary joseph nodule)
 - Urachal sinus tuberculosis (8), urachal cyst tuberculosis (1), complete vesico-urachal tuberculosis.
 - Psoriasis inversa with secondary infection
 - Endometriosis of umbilicus (2,3).

TABLE 1: Umbilical disorders

- In our case patient directly presented with late stage infected umbilical granuloma with para umbilical sinuses. On admission, suspicion of tuberculosis was made based on duration of symptoms, followed by pilonidal sinus and hydradenitissupparativawithpatients’ courtesy, we were able to trace the previous lesion photos. Post-operative histopathology report concluded our diagnosis.

CONCLUSION:

Umbilical disorders should always be evaluated meticulously, as it can present either as small abscess or directly as metastatic carcinoma. Hence proper examination and investigations should be done to rule out underlying disease. In cases of umbilical diseases, omphalectomy should be kept in mind as it may be a necessary sometimes to do in widespread diseases.

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