Abstract:
A 16 yrs old boy came to surgical op with complaints of pain and discharge from the umbilicus for 4 days. Swelling and redness over the umbilicus for 4 days. On examination umbilicus indurated tender on palpation, 1x1cm granulation tissue protruding through the umbilicus with minimal discharge. he was evaluated relevant investigations were done, USG abdomen shows normal study, patient planned for exploration, we found a rare finding of persistent urachus connected between umbilicus and dome of bladder. Whole tract was traced and excised with cuff of bladder. Detailed discussion regarding this case as follows.

Keyword : urachus, urachal anomalies, umbilical granuloma

PERSISTENT URACHUS PRESENTING AS AN UMBILICAL GRANULOMA -A CASE REPORT Vignesh 16yrs male patient.
PER ABDOMEN: Soft; Bowel sounds + umbilicus: indurated tender on palpation warmth about 1cm size of granulation tissue protruding through the umbilicus with minimal discharge

INVESTIGATIONS:
Routine blood investigation: normal
§ Chest x-ray: normal
§ ECG: normal
§ USG Abdomen: normal

Under GA

Midline incision made around the umbilicus,

Umbilicus explored following findings were noted,

Local collection of debris beneath umbilicus with a mass of omentum adherent to the parietal wall of the peritoneum

The patent urachus tract found beneath the umbilicus

It extends upto dome of the bladder

An urachal tract excised with the cuff of the bladder

After complete haemostasis, wound closed in layers

FIG 2: INTRAOPERATIVE PICTURE SHOWING PERSISTENT URACHUS
Bladder catheterized and kept for 10 days. The specimen sent for biopsy. Suture removal was done and patient discharged. Biopsy report shows; a section from the umbilical granuloma with patent urachus shows fibrocollagenous tissue with squamous cell layer and subepithelial blood vessels with granulation tissue. Urachal tract shows columnar epithelium and fibrous connective tissue with surrounding smooth muscle layer. Impression: non specific umbilical granuloma with persistent urachus.
FIG3 & 4: HISTOPATHOLOGY OF UMBILICAL GRANULOMA FIG 5 & 6: HISTOPATHOLOGY OF URACHUS

Review of literatures: Incidence of urachal anomalies are low. Drawson et al reported 2 cases in 300000 hospital admissions. Nix et al reported 3 cases in 200000 hospital admissions in Boston and 3 cases in 1168760 Hospital admission in New Orleans. Incidence rate in males is twice as high as females.

Rich et al reported that urachal anomalies were associated with other genitourinary conditions such as hypospadias and crossed renal ectopia. Other investigators reported associated anomalies in case of persistent urachal remnants including meatal stenosis, hypospadias, umbilical and inguinal hernias, cryptorchidism, anal atresia. Persistent urachus lies between the transversalis fascia and the parital peritoneum contained in the pyramidal, retropubic, preperitoneal prevesical space compartmentalized by umbilicovesical fascia along with the medial umbilical ligaments and the bladder (Hammond et al, 1941). On embryologically, 4th or 5th month of gestation, the bladder descends into the pelvis and its apical portion progressively narrows to a small, epithelialized fibromuscular strand called the urachus. Later on it obliterated by fibrous proliferation. CLASSIFICATION OF URACHAL ANOMALIES

Summary:

A 16 yrs old male patient admitted with pain and discharge from the umbilicus for 4 days. Swelling and redness over the umbilicus, with protruding granulation tissue 1x1cm through the umbilicus with minimal discharge. he was evaluated and relevant investigations were done, patient planned for exploration, we found a rare finding of persistent urachus connected between umbilicus and dome of bladder. Whole tract was traced and excised with cuff of bladder.
Patent urachus (48%)
Urachal sinus (18%)
Urachal diverticulus (3%)
Urachal cyst (31%)

Clinical features:
Majority of patients with urachal anomalies are asymptomatic. However they may become symptomatic, if these abnormalities associated with infection. Persistent communication exists between the bladder lumen and the umbilicus, urine leakage usually noted during the neonatal period. 1/3rd of this patient associated with posterior urethral valves or urethral atresia.

Urachal cyst may sometimes present as an abnormal mass and develop into abscess in the abdominal wall if infected or ruptured into peritoneal cavity, presents with peritonitis. Urachal sinus presents with generalized pain, fever, periumbilical pain, redness, or drainage. Urachal diverticulum is often asymptomatic and is usually found incidentally. It often associated with recurrent urinary tract infection.

Complications of urachal anomalies:
- Infection is the most common complication.
- Adenocarcinoma from urachal remnant is very rare, about <0.01% of all malignancies in bladder. Most of this carcinomas occurs in distal parts of the urachus where it is attached to bladder. Investigations includes:
  - USG Abdomen, Voiding cystourethrogram
  - Analysis of discharge for urea and creatinine, Instillation of methylene blue into tract intravesically, Retrograde fistulography

Treatment:
- Infected patent urachus with abscess, initially drained under antibiotic coverage.
  once infection subsided, complete excision of the tract including cuff of bladder (Nix et al-1995).

REFERENCE


