

Recommended Outline for Case Reports

Requirements

800-1000 words for each case

3-5 references

Structure as outlined below.

1.- IDENTIFICATION

- Name (initial only)
- Clinical record number
- Hospital – out patient clinic– other)

2.- INITIAL VISIT

- Clinical history
- Finding of physical exam
- Exams requested (lab – others)
- Initial diagnosis
- Initial treatment

3.- FOLLOW UP

- Clinical evolution
- Physical exam changes
- Lab and others exam result
- Final diagnosis
- Treatment

4.- DISCUSSION

- Fundaments of Diagnosis
- Differential diagnosis

5.- TYPE AND FORM OF CANDIDATE PARTICIPATION (brief description)

Sample case report

1. Identification:

- A.B.
- Hospital record number 123456,
- The Children's Hospital – emergency department, inpatient, then outpatients

2. Initial presentation

AB is a previously well 14 year old girl who presented with a 4 day history of right iliac fossa pain. Sudden onset of pain associated with dizziness and nausea. Pain intermittently worsens with associated exacerbation of dizziness and nausea. Has vomited with the pain. No anorexia, no fever, no alteration in bowel action. No pain with micturition, no urinary frequency.

Menarche at 12 years. Periods occur every 4-5 weeks. Not heavy and not painful. Last period 3 weeks ago. No previous surgery. No known allergies.

Lives at home with parents and older sister. Attends local high school – enjoys school. Usually plays basketball – but could not play yesterday due to pain. (With parents out of the consulting room – does not drink alcohol, does not smoke, has a boyfriend, but has never been sexually active)

On examination: Afebrile, Pulse 80, blood pressure 105/75. Pale. Not dehydrated. Abdominal examination – tender right iliac fossa with some mild guarding and rebound. (Vaginal and speculum examination – not performed – as not sexually active; per rectal examination not performed)

Investigations included: Full blood count – no evidence of infection, Hb 12.5. BHCG-negative

Pelvic ultrasound : appendix not seen. Right ovary 6cm x 6cm. Ovary has oedematous appearance. Absent blood flow. Left ovary 3cm x 3cm with several follicles noted, normal blood flow.

Differential diagnosis: At presentation, the following diagnoses were considered:

- Appendicitis – absence of anorexia, no alteration in bowel actions make this less likely. The clinical findings of no fever are against this diagnosis where a low grade fever is expected. The abdominal findings are consistent with appendicitis. The blood count showed no evidence of infection. The ultrasound did not identify the appendix .
- Ovulation or midcycle pain – can be associated with pain and nausea. Her cycle is reasonably regular – so is likely to be ovulating (2 years post menarche). Afebrile and lack of White cell changes mean this is possible. The enlarged ovary is also consistent – but would have expected / hoped to see an ovulation cyst of 3cm with or without haemorrhage into it.
- ectopic pregnancy – AB denies sexual activity, but does have a boyfriend. Permission asked to do a pregnancy test – which was negative. Ectopic pregnancy excluded.
- Ovarian torsion – history of sudden onset pain with associated nausea, vomiting and dizziness is classic for gonadal torsion. Fever can be present, so presence or absence of a low grade fever is not really helpful. Lower abdominal /pelvic tenderness is consistent with torsion. Absence of changes on full blood count help to exclude other causes. Ultrasound findings- suggestive of torsion – with enlarged ovary with features suggestive of oedema and absent blood flow.

Management: Taken to the operating theatre for a laparoscopy +/- detorsion, +/- ovarian cystectomy.

In theatre: Torsion of the right ovary and tube identified. Ovary oedematous and blue. Normal appendix. Ovary and tube detorted. Colour only marginally improved, but decision to leave blue ovary in situ. Decision not to 'explore ovary' due to oedematous state of ovary .

Discharged home on day 2 post op. Plan to review in outpatients in 6 weeks, with an ultrasound the week prior to review

3. Followup

Reviewed in gynaecology outpatients 6 weeks later. Complete resolution of pain.

Operative incision healed well.

Ultrasound demonstrated ovaries of equivalent size. Follicles noted on both ovaries.

Discussion regarding risk of this recurring and recommendation of early presentation if symptoms occur. If this recurred on same side - consideration to ovarian pexy would be given.

4. Discussion

The differential for the presentation of acute onset of pelvic pain in a young adolescent included appendicitis, ovulation pain, ectopic pregnancy and ovarian torsion.

Ovarian torsion is often a delayed diagnosis in girls with presentation after a few days (as distinct from testicular torsion in boys). Vomiting in association with the pain is a symptom that is very suggestive of torsion. The absence of a fever and elevated white cell count goes against the diagnosis of appendicitis – the main differential for right iliac fossa pain and tenderness.

The ultrasound findings in this case were very suggestive of torsion. Although on ultrasound there may still be evidence on Doppler of blood flow to the ovary in the setting of a torsion – so the presence or absence of flow is not diagnostic.

The presence of a blue oedematous ovary is not an indication for oophorectomy. A study by Oelsner(1) demonstrated that over 90% of ovaries that had undergone torsion, if detorted, had evidence of follicles on follow-up. The colour, duration of symptoms, number of twists, mode of surgery (laparoscopy or laparotomy) did not correlate with the presence or absence of follicles on follow-up. The current recommendations are that detorsion should be the primary procedure, with ovarian cystectomy only performed if the ovary is not oedematous or haemorrhagic.

Followup ultrasound to ensure resolution of any underlying cyst should be undertaken, so that removal of the cyst can be planned at a later stage (therefore operating on a non-ischaemic ovary). There is no evidence that the risk of malignancy is high in a tormented ovary(2). There are no documented reports of pulmonary embolus following detorsion(2,3).

5. Role/ participation

I was Fellow in PAG on call, attended patient in emergency department, organised ultrasound. Undertook the surgery with the consultant. Reviewed the patient in outpatients at the followup.

References:

1. Oelsner G, Cohen SB , Soriano D, Admon D, Mashiach S, Carp H. Minimal surgery for the twisted ischaemic adnexa can preserve ovarian function. *Human Reprod* 2003; 18: 2599-602
2. McGovern PG, Noah R, Koenigsberg R, Little AB. Adnexal torsion and pulmonary embolism: case report and review of the literature. *Obstet Gynecol Surv* 1999;54: 601-8
3. Wang JH, Wu DH, Jin H, Wu YZ. Predominant etiology of adnexal torsion and ovarian outcome after detorsion in premenarchal girls. *Eur J Pediatr Surg* 2010;20:298-301