CASE REPORT

Value of Laparoscopy in an Unusual Case of Chronic Pain Abdomen

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About the Author

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A 45-year-old lady presented with moderate spasmodic pain in the right lower abdomen of 1-month duration. The pain was relieved by antispasmodics till its effect lasted. She was having such episodes since last couple of years for which she had visited many doctors. She had undergone a laparotomy 8 years back (details not available).

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On examination, she is of normal health and vitals. Abdominal examination revealed a lower midline scar and tenderness over right iliac region. Her USG showed a right ovarian cyst of 5 cm size.

Since she was experiencing severe episodes of pain, she was diagnosed as case of twisted right ovarian cyst and placed for laparoscopy and proceed.

- Scope was introduced through a 10-mm supraumbilical optical port.
- Dense omental adhesions from the umbilicus down to about 10 cm (due to previous surgery) were released through a right lower hypochondriac port using the harmonic shear for a better visualization and adhesiolysis (Fig. 1)
- The right ovary with the cyst was found to be twisted around its axis (Figs. 2, 3)
- There were several rounds of twisting by a tubular structure that originated from the antimesenteric border of terminal portion of ileum. This was the

Fig. 1 Adhesiolysis

Fig. 2 Ovarian cyst

Fig. 3 Twisted ovary with band

vitellointestinal duct, whose umbilical end (possibly detached from the abdominal wall in the previous surgery) had got attached to the ovary and twisted round it (Fig. 5)

- The V-I duct was untwisted (3 turns) around the ovary and removed by endo-looping the ileal end and excising the distal by harmonic scalpel (Figs. 4, 6, 7)
- Rt. salpingo-oophorectomy was done since the ovary could not be kept untwisted (Fig. 8)

Fig. 4 Derotation

Fig. 5 Vitellointestinal duct remnant

Fig. 6 VID double ligation

Fig. 7 VID excision

Fig. 8 Right oophorectomy

Fig. 9 Appendicectomy

- Retrograde appendicectomy was done as the appendix was found to be densely adhered and buried subcaecally (Figs. 9, 10)

Fig. 10 All three

All the procedures were done laparoscopically. The patient was allowed oral fluids the next morning and discharged on third day feeling much relieved from the previously experienced pain. She is pain free and happy after 12 weeks and subsequent follow-ups.

Discussion

This case report describes the unique finding of a congenital vitellointestinal remnant band whose umbilical end had got detached during previous surgery and reattached itself to the root of the right ovary extending to the antimesenteric border of the ileum. Her chronic abdominal pain was due to intermittent twisting of it around the ovary and pulling the bowel towards it. This apart, the ovary already weighed down by the cyst was undergoing frequent episodes of incomplete twisting by the band further aggravating the process. The deep tenderness that the patient experienced in the rt. iliac region was due to the chronically inflamed appendix which was densely adhered to the deeper structures. Also there were omental adhesions to the abdominal wall.

Vitellointestinal duct (VID) connects the yolk sac with the primitive midgut of the foetus, and it passes through the umbilicus. Failure of complete obliteration of VID can result in remnants. Meckel's diverticulum (MD) is by far the commonest anomaly of omphalomesenteric tract. Congenital vascular bands are established causes of acute intestinal obstruction, especially in children, but are relatively uncommon and difficult to diagnose preoperatively. Our case describes a rare case of a remnant of VID in the absence of Meckel's diverticulum causing intermittent chronic abdominal pain in an adult. Chronic abdominal pain is a perplexing disorder commonly encountered by all clinicians, both in general practice and in hospitals. For more than 40 % of the patients presenting with chronic

abdominal pain, the issue remains unsolved at the end of their diagnostic set-up that often includes a laparotomy. Depression and a poor quality of life are a constant accompaniment [1].

Many common organic and functional diseases can cause it. The former include intestinal adhesions, appendicular causes, biliary causes [2], ovarian causes, etc, while later include conditions like irritable bowel disease, functional dyspepsia [3], motility disorders, etc. After ruling out these by relevant investigations, many patients are still undiagnosed and represent a diagnostic challenge to the surgeon. With the introduction of laparoscopic surgery, a new tool has been added to our knowledge.

The use of laparoscopy in patients with ill-defined chronic abdominal pain is not well defined. However, various cohort studies have proved diagnostic laparoscopy to be a safe and effective tool in the management of patients with chronic abdominal pain. Laparoscopy can identify abnormal findings and improve the outcome in majority of patients with chronic abdominal pain, as it allows surgeons to see and treat many abdominal conditions that cannot be diagnosed otherwise. It can positively identify pathology in 65–85 % cases of chronic abdominal pain [4]. It also improves the outcome in the majority of patients as it allows surgeons to treat much abdominal pathology with long-term pain relief in approximately 70 % of cases [5]. It can establish the aetiology and allows for appropriate interventions in such cases [6]. Abdominal adhesions are the most likely findings, especially in patients with past history of abdominal operations. Other findings such as appendicular pathology, hepatobiliary causes, and endometriosis can be discovered and dealt with (Salky) [7]. There are instances in which laparoscopy throws up surprises and the seemingly unresolved issue of aetiology of the patient's abdominal pain unravels itself beautifully. Added to that it also gives one unique opportunity to treat the condition at the same setting with minimal access, thereby giving immense relief to the patient and relieving him/her of the prolonged suffering as in this case.

Conclusion

This case report highlights an unusual cause of chronic abdominal pain in an adult. Isolated congenital vascular bands of vitelline artery remnant are rare, but it is important to be aware of such bands, recognizing and ligating them. This case also shows that laparoscopy can be an effective diagnostic and therapeutic modality in the management of patients with chronic abdominal pain. The cause of the pain was due to multiple factors, each organic and distinctive. Without the aid of laparoscopy it would have been impossible to diagnose and manage it effectively. Thus, laparoscopy is of immense value in the effective diagnosis and, at times, management of difficult cases of chronic abdominal pain when the other modalities have been exhausted.

Compliance with Ethical Standards

Conflict of interest Dr. Supriya Pani and Dr. Biren Padhy declare that they have no conflict of interest.

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