Case report 1 Intra-operative detection of asymptomatic perforated 2 **Copper T- A case report** 3

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ABSTRACT 5

6 Context: Uterine perforation is a rare yet important complication of intrauterine device (IUD). 7 Whereas many experts recommend removal of perforated IUD irrespective of symptomatic or not, 8 no-touch is recommended when IUD is outside the uterus and IUD is surrouned and embeded in the 9 fibrotic tissues: attemting its removal may cause bleeding. Thus, asymptomatic perforation poses a 10 management dilemma.

11 Case report: We report a patient with asymptomatic perforated IUD (copper T) incidentally 12 detected intraoperatively, which we removed under mini-laparotomy. A 32-year-old pregnant 13 woman (Gravida 5 Para 4) presented to us for Medical Termination of Pregnancy and laproscopic 14 tubal ligation. Vaginal examination revealed uterus of 10 week-size and bilateral fornices were free 15 and non tender. Transvaginal ultrasound revealed a single live intrauterine embryo of 10 week-size. 16 Laparoscopy revealed that the left cornu of the uterus was peforated, from which IUD thread was 17 observed: no thick fibrosis was observed around the site. Thus, we decided to remove IUD through 18 minilaprotomy: we held the thread and removed the IUD slowly, with no bleeding. Postoperative 19 period was uneventful.

20 Conclusion: In this case, considering no fibrosis around the perforated site, leaving this IUD 21 potentially may cause future complications, and thus, we decided to remove it. No conclusion can be 22 made from this single case, we believe that this case may provide information to decide whether 23 perforated IUD, which was incidentally found, should be removed or not.

- 24 Key words: perforation, contraception, CopperT
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INTRODUCTION 26

27 Uterine perforation is an important complication of postpartum intrauterine device insertion, with an incidence of one in 1,000 insertions. [1] Most cases are "silent" and not 28 recognized at the time of insertion. Symptoms may vary according to location of extra 29 uterine IUD i.e. pain abdomen, bowel symptoms, frequency of micturition, recurrent 30 31 urinary tract infection.

- 32 A perforated IUD which is symptomatic , need to be removed by laparoscopy or laparotomy.
- However when IUD perforation is asymptomatic and it is accidentally detected at the time 33

of surgery, it poses a dilemma as whether to remove or leave it. This case report highlightsmanagement of one such a case.

36 CASE REPORT

A 32 year old Gravida 5 Para 4 with 4 living children presented to us for Medical Termination
of Pregnancy with laproscopic ligation. All her deliveries were full term normal vaginal
deliveries and postpartum CuT375 was inserted 2 years back after last childbirth in a
government hospital. According to the patient, she spontaneously expelled the IUD 6
months back. She did not have any complaints.

On examination, abdomen was soft. Per speculum examination revealed a healthy cervix
and vagina. On per vaginal examination, uterus was 10 weeks size and bilateral fornices
were free and non tender.

45 Transvaginal ultrasound was done which confirmed a single live intrauterine fetus of 1046 weeks 6 days. No abnormality was detected.

Patient was taken for Medical Termination of Pregnancy with laproscopic ligation under
short general anaesthesia. On laparoscopy, CuT thread was seen perforating through the
left cornu of uterus. Decision for minilaprotomy taken in view of perforating IUD after
appropriate consent from husband.

Supra-pubic 3-5 cm vertical incision was given and abdomen opened in layers. IUD thread was seen perforating at fundus near the left cornu. It was removed slowly by holding the thread with artery forceps through the perforation site. No active bleeding was observed at the perforation site. Bilateral tubal ligation was done by modify pomeroy's method. Postoperatively, patient was observed and injectable antibiotics(ampicillin, gentamycin and metronidazole) given for 48 hours. Patient was discharged on day 3 and followed on day 7. She had an uneventful postoperative period

58 DISCUSSION

59 Most experts recommend removal of perforated IUD whether symptomatic or not.

In case report by Heinberg et al, three cases of asymptomatic uterine perforation
presenting one year after insertion were managed by endoscopic removal. It was
emphasised that If the IUD is deeply embedded into the myometrium or presenting within
the peritoneal cavity, operative laparoscopy should be done.[2]

Another case reported by Hasan Ali Inal etal of successful conservative management of a dislocated IUD concluded asymptomatic patients, whose vaginal examinations and ultrasonography or X-ray results reveal a dislocated IUD, may benefit from conservative management.[3]

68 Ministry of health and family welfare of India (2018) recommends:[4]

- Uterine perforation discovered within 6 weeks after insertion: IUD embedded in the wall
- 70 of the uterus (partial perforation) or outside the uterine cavity (complete perforation)
- 71 should be removed immediately by laproscopy or laprotomy.
- Uterine perforation discovered after 6 weeks or more after insertion:
- 1 IUD embedded in uterine wall (partial perforation), it should be removed. (hysteroscopicremoval may be attempted).
- 75 2 IUD outside the uterine cavity (complete perforation) and woman does not have any

76 symptoms, it is safer to leave the IUD than remove it. After 6 weeks, IUCDs that have

77 completely perforated the uterus, may become partially or completely covered with scar

78 tissue and this rarely causes any problems. These should be left at their place as removal of

79 such IUCD may lead to pelvic abscess and other complications.

80 If the IUD is outside the uterine cavity (complete perforation) and the woman has symptoms
81 such as abdominal pain associated with diarrhea, or excessive bleeding, it should be
82 removed immediately by laparoscopy or laparotomy.

83 In our case though the IUD was inserted more than 6 weeks ago and asymptomatic, but

84 since there was no fibrosis, leaving this cu T potentially had risk of future complications like

85 perforation in bowel or urinary tract. Rarely, adhesion formation stimulated by a perforated

- 86 device can result in intestinal obstruction .[5] Therefore removing cu T at this time was the
- best option with minimum complications . Our patient did well with no post-operativecomplications.
- 89 **CONCLUSION**: Though asymptomatic, but since there was no fibrosis, leaving this IUD

90 potentially had risk of future complications. Therefore removing IUD at this time was the

- 91 best option with minimum complications.
- 92 Aknowledgement: None
- 93 Funding: None
- 94 Conflicts of interest: None
- 95 Consent: Obtained from patient and husband for publication
- 96

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- 108 <mark>613.</mark>
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- 112 Fig 1: Embedded Cu T <mark>375</mark>(Multiload)