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Does Delay in the Diagnosis of Rudimentary Horn Pregnancy in Patients with Unicornuate Uteri Impact Treatment Outcomes?

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OBJECTIVE: Rudimentary horn pregnancy (RHP) is a very rare form of ectopic pregnancy (EP) that tends to rupture in the second trimester. Similar to other EPs, the treatment of RHPs is excision, hence delay in diagnosis (DID) can be detrimental. Our objective is to determine whether DID of RHP in patients with unicornuate uteri (UCU) impacts the treatment outcome.

DESIGN: Retrospective cohort study of published case reports in PubMed database.

MATERIALS AND METHODS: A computerized PubMed search of case reports of RHP from 2007 to 2020 was performed using the key words; unicornuate uterus, rudimentary horn, pregnancy, case. Data was analyzed with SPSS version 26.

RESULTS: Of the 97 published cases, due to limited information available, 95 cases were included, 40 (42.1%) in which the diagnosis of RHP was made at first encounter and 55 (57.9%) in which the diagnosis was delayed. Out of these cases, it was possible to calculate the median [range] length of delay (35 [1-1825] days) in only 32 cases. Of 95 cases, 27 (28.4%), 5 (5.3%), 61 (64.2%), 1 (1.1%), underwent laparoscopy, laparoscopy converted to laparotomy, laparotomy, and methotrexate injection respectively. Diagnosis was made at autopsy in one case.

	Diagnosis Made at First Encounter	Diagnosis Delayed	P-value
Age (years)*	n = 38, 27.2±6.9	n = 55, 26.2±4.7	0.42
Gravidity**	n = 34, 2 [0-4]	n = 51, 2 [1-8]	0.21
Parity >20weeks**	n = 33, 0 [0-3]	n = 52, 1 [0-5]	0.53
GA at diagnosis (weeks)**	n = 40, 12 [5-39]	n = 54, 18 [5-42]	**0.001**
Patient with known history of a uterine anomaly	3/40 (7.5%)	18/54 (33.3%)	**0.003**
Patient with known h/o RH	3/40 (7.5%)	3/54 (5.6%)	0.70
History of prior EP	3/32 (9.4%)	4/47 (8.5%)	1.0
Pain symptom on admission	23/38 (60.5%)	27/51 (52.9%)	0.52
Hemoperitoneum on admission	13/38 (34.2%)	19/49 (38.8%)	0.82
Estimated amount of hemoperitoneum (L)**	n = 34, 0 [0-5.0]	n = 45, 0 [0-4.0]	0.46
Emergent surgery done	31/39 (79.5%)	41/54 (75.9%)	0.80
Ruptured RH at surgery	14/39 (35.9%)	22/55 (40.0%)	0.80
Pregnancy in peritoneal cavity at operation	9/36 (25.0%)	14/53 (26.4%)	1.00
Fetus alive prior to/at surgery	14/32 (43.8%)	26/53 (49.1%)	0.66
RH excised at surgery	35/38 (92.1%)	51/54 (94.4%)	0.69

*(n=numbers, mean±SD)
**[n=numbers, median(range)]

CONCLUSIONS: Diagnosis of RHP was significantly more likely to be made at first encounter when patients were known to have a uterine anomaly. DID was associated with a significantly higher GA at the time of treatment but there was no significant difference in the proportion of fetuses that were alive upon entrance to the abdomen, rate of ruptured RH and hemoperitoneum. Out of all of the cases, only one maternal death was reported. Therefore, delaying surgery to confirm a diagnosis of RHP does not adversely impact the maternal fetal outcome.

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