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CASE REPORT

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Ectopic pregnancy decision tree needs modification:A case series report

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Background

During the time period of 2014-2015, 10 women with pelvic pain and positive pregnancy tests presented to the Emergency Room for evaluation and treatment.The most unique aspect was that 9 of the 10 presented as ruptured ectopic pregnancies that could have been missed utilizing the standard decision tree used by most gynecologists [1].

Case

Ten women presented to my service, through the Emergency Room, from 2014 through 2015, who would not have met criteria in the traditional decision tree for ectopic pregnancy; were taken to the Operating Room for laparoscopy, which confirmed their ectopic pregnancy.At the time of laparoscopy, 9 out of the 10 were ruptured.The decision for surgery was based on ultrasound findings of at least a moderate amount of fluid in the pelvis, along with a high index of suspicion.The current decision tree needs modification based on the fact that does not include evaluation of pelvic fluid, which was critical in deciding on whether to take these patients to the OR for evaluation and treatment.This strongly suggests that the current decision tree analysis is inadequate without this additional criterion for diagnosis.

They all had signs including a sudden onset of pain, and a lack of an IUP with a positive pregnancy test.In addition, all had come through the emergency room which resulted in an ultrasound for each case.All had received pain medication.They all had normal blood counts.Only 2 of the patients had any risk factors for ectopic pregnancies.Interestingly, with one exception, they all had a moderate amount of fluid in the pelvis (one had a small amount). Nine of the ten had ruptured ectopic pregnancies at laparoscopy, while the tenth was in the process of rupturing. All had hemoperitoneum. Each one underwent laparoscopic salpingectomy.

Fortunately, they all had come through the ER, which virtually guaranteed a pelvic ultrasound.This additional information obtained, (a moderate amount of fluid in the pelvis), raised my index of suspicion to the point of making the decision to go to the OR for diagnostic laparoscopy.Since all the ectopic pregnancies had ruptured, save one, I am suggesting it is necessary to update the widely-used decision tree analysis.It is hard to underestimate the value of preventing the morbidity and mortality of missing this diagnosis, not to mention the costs, especially with the relatively low risk of laparoscopic evaluation.Given this, the current decision tree is in need of modification.

Results

Each one of these ladies had quantitative BHCG's that did not meet criteria range (2000) for an IUP; and all had normal vital signs and were hemodynamically stable.

Discussion

While a standard decision tree doesn't necessarily include an endopelvic ultrasound that omission could prove problematic. The ultrasound adds valuable information for a relatively little cost; and could avoid missing an ectopic and possibly one that is ruptured.The quantitative BHCG values were too low to expect to see intrauterine gestations and the patients did not show hemodynamic instability.It should be noted several of these patients that demonstrated adnexal masses, but, it was unclear whether that represented an ectopic or an undefined ovarian mass. While peritoneal fluid is not specific, it is highly sensitive, but it is not listed as a criterion for diagnosis [2]. Without a high level of suspicion, it is questionable that these patients would have been taken to surgery, where all but one pregnancy had ruptured the fallopian tube.

Conclusion

The setting of the ER in a low socioeconomic setting, the gynecologist should have a high index of suspicion which leans toward laparoscopy.The trend with these patients in that they all had a moderate amount of fluid in the pelvis, which isn't a criterion for diagnosis in the standard algorithm.Although that is hard to quantify and not diagnostic it is highly sensitive for ruptured ectopic pregnancies.

References

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