

Limitations of Telemedicine- a Gynecologist’s Perspective

Sarah Werner¹ and Adi Katz²

¹Lenox Hill Hospital Health Sciences Library

²Lenox Hill Hospital

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Abstract

A Gynecologist’s perspective on the limitations of telemedicine in the setting of early pregnancy diagnosis during the COVID-19 Pandemic.

To The Editor: As the COVID-19 pandemic continues on into its 6th month since the virus was first reported in the United States,¹ telemedicine has become the forefront of many outpatient visits in New York City as providers across all subtypes aim to decrease exposure risk and comply with social distancing. The obstetrical population has been faced with unique challenges, including multiple interactions with their providers from early in their first trimester, when a sonogram is performed to confirm intrauterine pregnancy, all the way until delivery 40 some weeks later. That initial antenatal visit, after a positive home pregnancy test, is crucial to ensure the diagnosis of an intrauterine pregnancy. Traditionally, this initial visit occurs two to six weeks after a positive home pregnancy test, therefore effectually placing the gestation anywhere from six to ten weeks in age at the time of the first antenatal visit.²

The alternative to an intrauterine pregnancy is a pregnancy of unknown location, which is a temporary diagnosis and implies either a viable intrauterine pregnancy, a non-viable intrauterine pregnancy, or an ectopic pregnancy. Ectopic pregnancies traditionally occur due to incorrect implantation of an early gestation, most commonly in the fallopian tube.² The annual rate of ectopic pregnancies is about 1% and 2% of that of live births in the United States, though it may be as high as 4% in pregnancies involving assisted reproductive technology.² These rates can be even higher in women who have history of PID, previous history of ectopic pregnancy, hydrosalpinx or tubal sterilization.⁴ A ruptured ectopic pregnancy is one of the most common gynecological emergencies and accounts for 10% of all pregnancy- related deaths. Death from a ruptured ectopic pregnancy is between 0.1-0.3% in developed countries². Despite medical advancement and developments in diagnosis and management, ruptured ectopic pregnancy continues to be a significant cause of pregnancy-related morbidity and mortality. Management of ectopic pregnancies includes IM administration of Methotrexate with serial monitoring of pregnancy hormone (B-hcg) or surgical management in the form of laparoscopic salpingectomy.³

At our university-affiliated community-based hospital in the Upper East Side of New York City we treat on average approximately 50 ectopic pregnancies a year with either medically or surgically. During the 2019-2020 interval, prior to the start of the COVID-19 Pandemic, we saw and treated 51 ectopic pregnancies presenting to our emergency room, corresponding to an average of 4.2 ectopic pregnancies a month. Of these, 76% (39) were treated with Methotrexate and monitored with serial b-hcg while 23.5% (12) were managed surgically after either presenting with signs and symptoms of ectopic rupture (hypotension, drop in hematocrit, acute abdomen) or failed medical management. Between March 15th to May 17th , 2020, during the height of the COVID-19 Pandemic in New York City, a total of 12 ectopic pregnancies were evaluated

and treated in our emergency room. More importantly, 83% (10) of these women were hemodynamically unstable at presentation and required urgent surgical management. Only 16% (2) patients had previously known their diagnosis and failed medical management with methotrexate. One of them was stable at the time of the salpingectomy and one of who came in unstable with a ruptured ectopic.

In just two months, we have nearly reached our annual ruptured ectopic pregnancy rate from the previous year. This report describes a dramatic increase in the diagnosis and management of ectopic pregnancies encountered within just two months at our institution, with a markedly increased number of ruptured and unstable patients at time of the initial diagnosis. When compared to previous years, it is critical to note this increase, as the women who presented with ruptured ectopic pregnancies were completely unaware of their diagnosis, and only knew that they had a positive pregnancy test at home.

The correlation between limited outpatient visits and a difficulty in making appointments to see providers with this increase in undiagnosed ectopic pregnancies cannot be ignored. As obstetrician gynecologists, our aim is to highlight a potential pitfall of telemedicine in the time of COVID-19 in order to capitalize on these lessons to reduce patient morbidity and mortality. While there are other potential reasons, we can only speculate as to why these women did not establish initial prenatal care. Such factors may include a patient's own concerns about going to a doctor's office during a pandemic. These data provides both an important reminder and a key opportunity for all OB/GYN providers to strongly consider seeing and evaluating these patients in the office in an effort to diagnose the location of a patient's new pregnancy during these trying times.

References:

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