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## Introduction

Acute pancreatitis (AP) during pregnancy is a rare but severe disease with a high maternal fetal mortality.<sup>1</sup> The most common causes for AP in pregnancy are gallstone pancreatitis which can be attributed to hormonal changes in pregnancy and familial hypertriglyceridemia.<sup>2</sup> Management strategy for gallstone pancreatitis in pregnancy is with laparoscopic cholecystectomy in the second trimester. However, management of AP of any other etiology is conservative like in non-pregnant individuals.

## Results and Figures

- A total of 7,886,986 pregnant women in the NIS database were identified. 3,295 of them were diagnosed with AP.
- 48.9% of AP occurred in the third trimester with 40.4% occurring during 30-39 weeks of gestation. 23.4% occurred in the first trimester and 27.8% in the second trimester.
- More cases occurred in White race than in African American and Hispanic races (37.5% vs 17.8% vs 35.1% respectively, P< 0.001).
- Fetal mortality with AP was 79.5% compared to 6.4% in the control group (P< 0.001). Spontaneous abortion was noted to be higher with AP compared to controls (0.5% vs 0.2%, P =0.009).
- Comorbidities that were associated with AP to a greater extent than in controls were overweight/obesity (14.9% vs 8.1%, P< 0.001) and hypertension (1.2% vs 0.2%, P < 0.001).

	Pregnants with Acute Pancreatitis (N=3,295)	Control group (N=7,867,126)	P-value
<b>Race</b>			
White	37.5%	51.9%	< 0.001
African American	17.8%	15.6%	
Hispanic	35.1%	20.8%	
Others	9.6%	11.7%	
<b>Trimester</b>			< 0.001
First	23.4%	1.2%	< 0.001
Second	27.8%	2.8%	
Third	48.9%	96.0%	
<b>Liveborn</b>	20.5%	92.6%	< 0.001
<b>Spontaneous abortion</b>	0.5%	0.2%	0.009
<b>Hypertension</b>	1.2%	0.2%	< 0.001
<b>Obesity</b>	14.9%	8.1%	< 0.001
<b>Eclampsia</b>	0.3%	0.1%	0.062

**Table 1.** Comparison of fetal and maternal outcomes between pregnant females with and without acute pancreatitis.

## Methods and Materials

De-identified patient data was used in this study using the National Inpatient Sample (NIS) database. The data covered the years 2002-2016. ICD-9 and ICD-10 codes were used for identification of the different variables being studied and the study population which was stratified in two groups: pregnant with AP and the control group. The data was analyzed using SPSS 10.

## Discussion

AP in pregnancy is uncommon with an incidence of 0.082%. However, it is a serious disease that is associated with higher incidence of spontaneous abortion (0.5%), fetal mortality (79.5%) as well as a higher rate of pregnancy complications such as hypertension. AP presents mainly during the third trimester of pregnancy and was found to be more common in women of the white race. It was also noted that obesity and overweight were significantly associated with AP during pregnancy which can contribute to the formation of cholelithiasis which is known to be one of the most common causes for AP in pregnancy along with familial hypertriglyceridemia .<sup>3</sup>

## Conclusion

Acute pancreatitis during pregnancy is a serious disease associated with obesity and hypertension with poor fetal outcomes.

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