

Number of Pregnancies and Live Births in Patients with Spinal Cord Injuries (SCI)

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INTRODUCTION

Spinal cord injuries (SCI) occur in 250,000 to 500,000 people worldwide each year with 18% of these occurring specifically in women of reproductive age¹. Due to the rarity of SCI in pregnancy, providers do not frequently encounter obstetric care for these patients, which likely lowers comfortability providing prenatal and intrapartum care. Thus, we aim to investigate the rate of pregnancy and live births in patients with SCI in an attempt to advocate for better outcomes and to inform proper screening protocols for this population.

METHODS

The National Spinal Cord Injury Statistical Center (NSCISC) public database was utilized for this study. This database contains deidentified data from patients with spinal cord injury entered between 1973 and 2021. Exclusion criteria were male patients, lack of entry for number of pregnancies and/or number of live births variables, and patients with an unknown number of pregnancies and/or live births. Descriptive statistics of range, mean, and median were utilized for this study.

RESULTS

There 2441 patients included in this study. The number of pregnancies ranged from 0 to 12 with a majority having 0 pregnancies. The average number of pregnancies per patient was 1.828±8.49 and the median was 2. The number of live births ranged from 0 to 10 with a majority having 0 live births. The average number of live births was 1.816±6.36 and the median was 2.

Figure 1: Number of Pregnancies in Patients with SCI

Number of Patients	Number of Pregnancies
0	770
1	400
2	533
3	348
4	196
5	98
6	50
7	19
8	12
9	6
10	6
11	2
12	1
Average	1.828
Standard Deviation	8.49

Figure 2: Number of Live Births in Patients with SCI

Number of Patients	Number of Live Births
0	770
1	400
2	533
3	348
4	196
5	98
6	50
7	19
8	12
9	6
10	6
Average	1.816
Standard Deviation	6.36

DISCUSSION

This study found that the average number of pregnancies for patients with spinal cord injury was 1.828. There is limited data on national pregnancy rates as studies on fertility utilize live birth rate for this estimate. The number of live births in patients with SCI is similar to the national fertility rate of 1.6 showing that SCI may not be a barrier to live birth in this population. Because of this, obstetric providers should be well educated on differences in routine prenatal care and common complications in this population. As a result, it is vital to acknowledge that preconception counseling must routinely be provided and that there may be differences in prenatal counseling for this population.

This study was limited by the use of a public data set which limited the extent of the analysis, the lack of pregnancy information entered for many women in the database, and the overall rate of SCI being lower in women.

CONCLUSIONS

All obstetric providers should be educated on protocol and common complications for pregnancy in patients with SCI and be aware of resources for this population in an effort to reduce care gaps and improve the overall patient experience.

REFERENCES

1. Bertschy, S., Geyh, S., Pannek, J. et al. (2015) Perceived needs and experiences with healthcare services of women with spinal cord injury during pregnancy and childbirth — a qualitative content analysis of focus groups and individual interviews. BMC Health Serv Res. 15, 234. <https://doi.org/10.1186/s12913-015-0878-0>
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