

A Retrospective Study on the Association Between History of Miscarriage and Occurrence of Ectopic Pregnancy

Yehia El khawly, Sameena wazir, Ghada Mounir, Hassan AlHamwi, Lolwa Alansari

Introduction

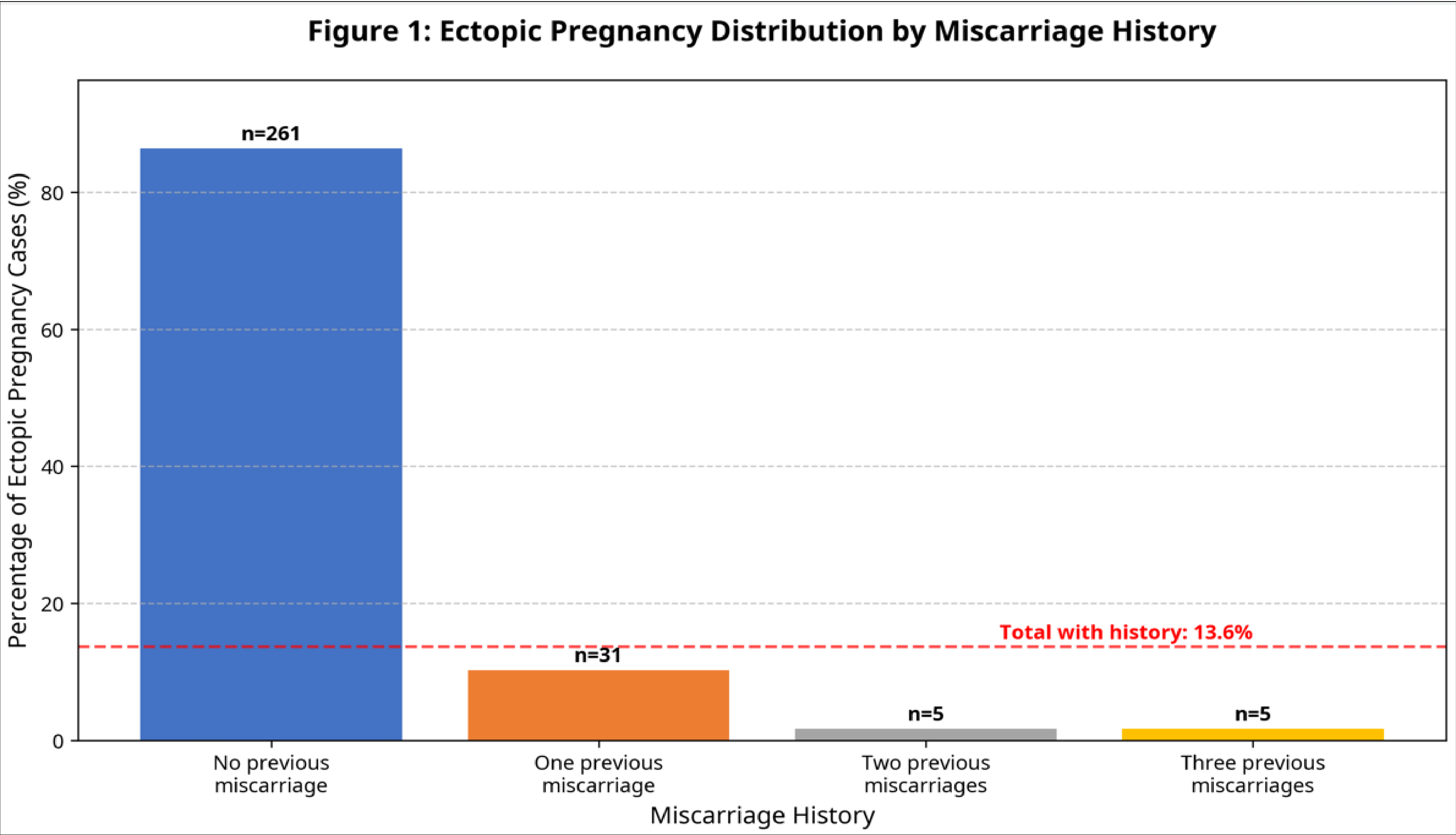
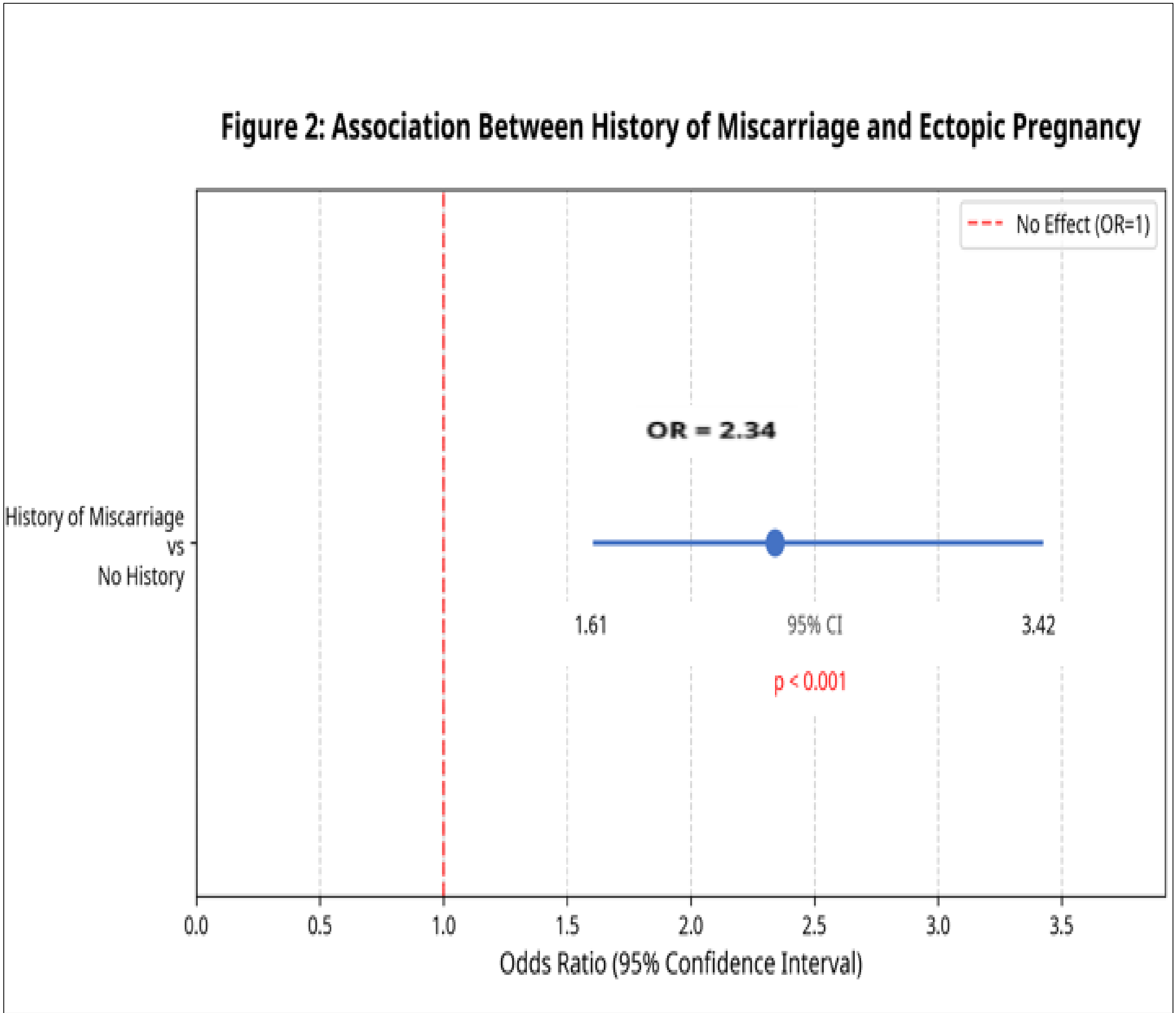
Ectopic pregnancy (EP) is defined as the implantation of a fertilized ovum outside the uterine cavity, most commonly in the fallopian tube (96%). EP is a significant contributor to maternal mortality, particularly during the first trimester. Established risk factors for EP include prior ectopic pregnancy, tubal pathology, assisted reproductive technologies, and pelvic or abdominal surgery. While a potential link between recurrent miscarriage and EP has been proposed, the impact of different miscarriage management methods remains underexplored. This study investigates the association between a history of miscarriage and the risk of subsequent EP.

Methods

A retrospective chart review was conducted at Al Wakra Hospital, analyzing electronic medical records from a four-year period. Patients with documented histories of miscarriage and subsequent ectopic pregnancies were included. Statistical analysis included odds ratios (ORs) and 95% confidence intervals (CIs).

Results

A total of 302 cases of ectopic pregnancy were identified. Among these, 41 patients (13.6%) had a documented history of miscarriage. The rate of EP occurrence was stratified by the number of prior miscarriages: patients with one previous miscarriage had an EP rate of 10.27% (n=31), while those with two or three previous miscarriages each accounted for 1.67% (n=5 and n=5, respectively) (Fig:1). Compared to patients with no history of miscarriage, the odds of experiencing EP were significantly higher among those with a history of miscarriage (OR: 2.34; 95% CI: 1.61–3.42, $p<0.001$). (Fig:2) Subgroup analysis did not reveal significant differences based on miscarriage management methods.



Conclusion

The findings indicate a positive association between a history of miscarriage and the risk of ectopic pregnancy. Patients with one or more previous miscarriages should be considered at higher risk for EP. Heightened clinical vigilance is essential for timely diagnosis and management in this population.