

An audit of external cephalic version done at tertiary care hospital, Oman

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Objective: To analyze the practice of External cephalic version (ECV) done in Khoula hospital, Muscat, Oman and to analyze factors identified in failed cases between January 2023 to June 2023 .

Design: This was a retrospective review of the electronic notes of all patients booked for ECV between January 2023 to June 2023 .

Method: Data was collected retrospectively from electronic patient records and analyzed in excel spread sheet.

Discussion: While most of the audits were done on identifying factors contributing to success rate our audit was concentrating more towards analyzing variables in failed cases. Out of the total 42 women who had ECV, 14 women (33%) had successful ECV. The reported success rate of ECV ranges from 35-86%, with a commonly quoted figure of 50%.^{1,2,3}

The low success rate could be due to small sample size, non use of tocolysis or improper case selection and lack of proper counseling. Number of obese women are comparatively higher in our population which could be one reason contributing to low success. Almost all of the audits and studies have shown significant success with the use of tocolysis. Our audit showed very less use of tocolysis probably due to bias with side effects and lack of strict locally agreed protocol.

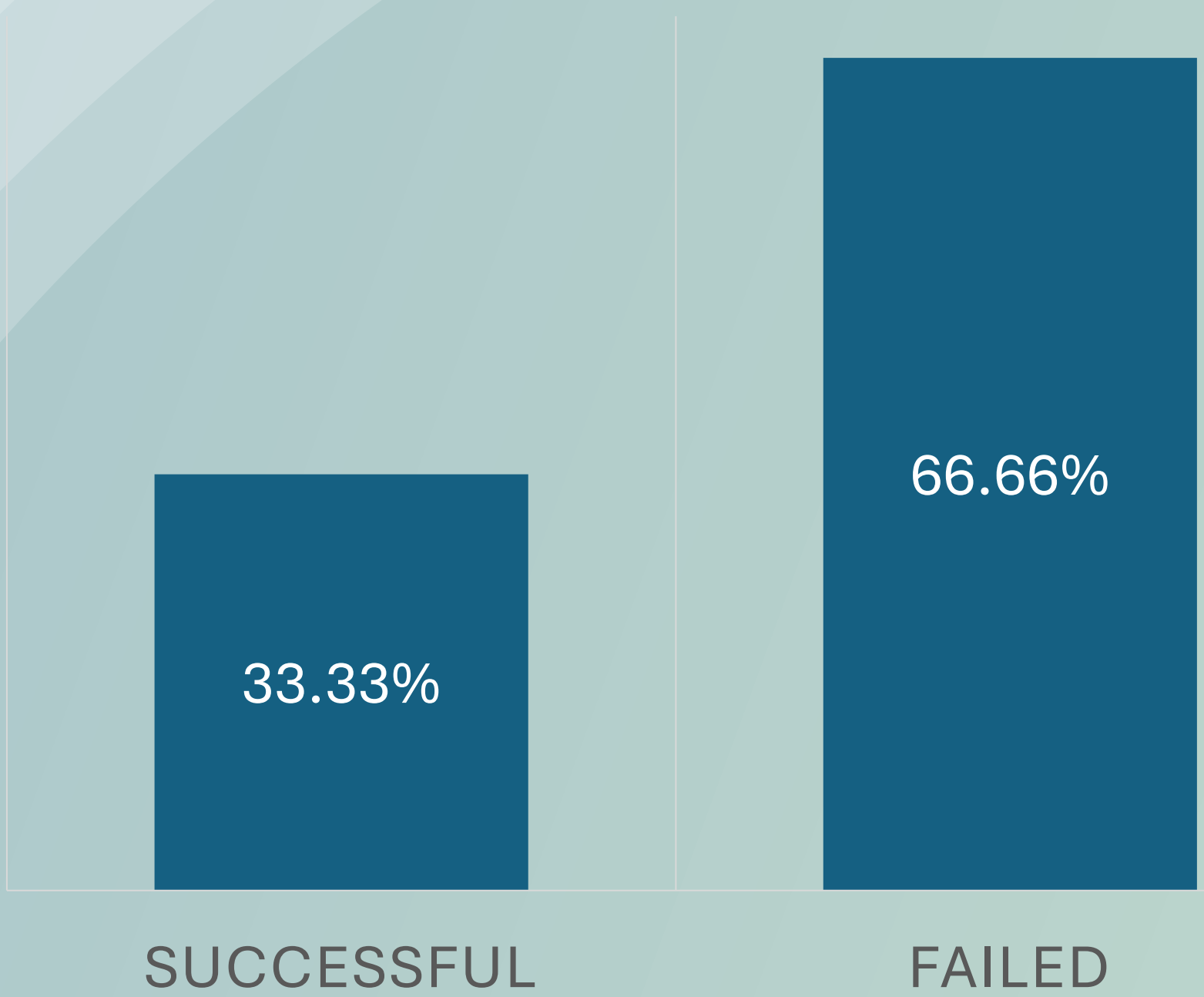
Five year audit on ECV done in Ireland in a large tertiary maternity hospital showed direct correlation between success rates and parity, with a 34% (61/177) success rate in nulliparae compared to 68% (149/325) in multiparae .⁴ Failure of ECV in multiparous women in our audit could be due to multiple contributory factors as mentioned above.

Majority of failures were in overweight or obese category whereas there was no correlation between BMI and success rates in the five year audit study in Ireland.

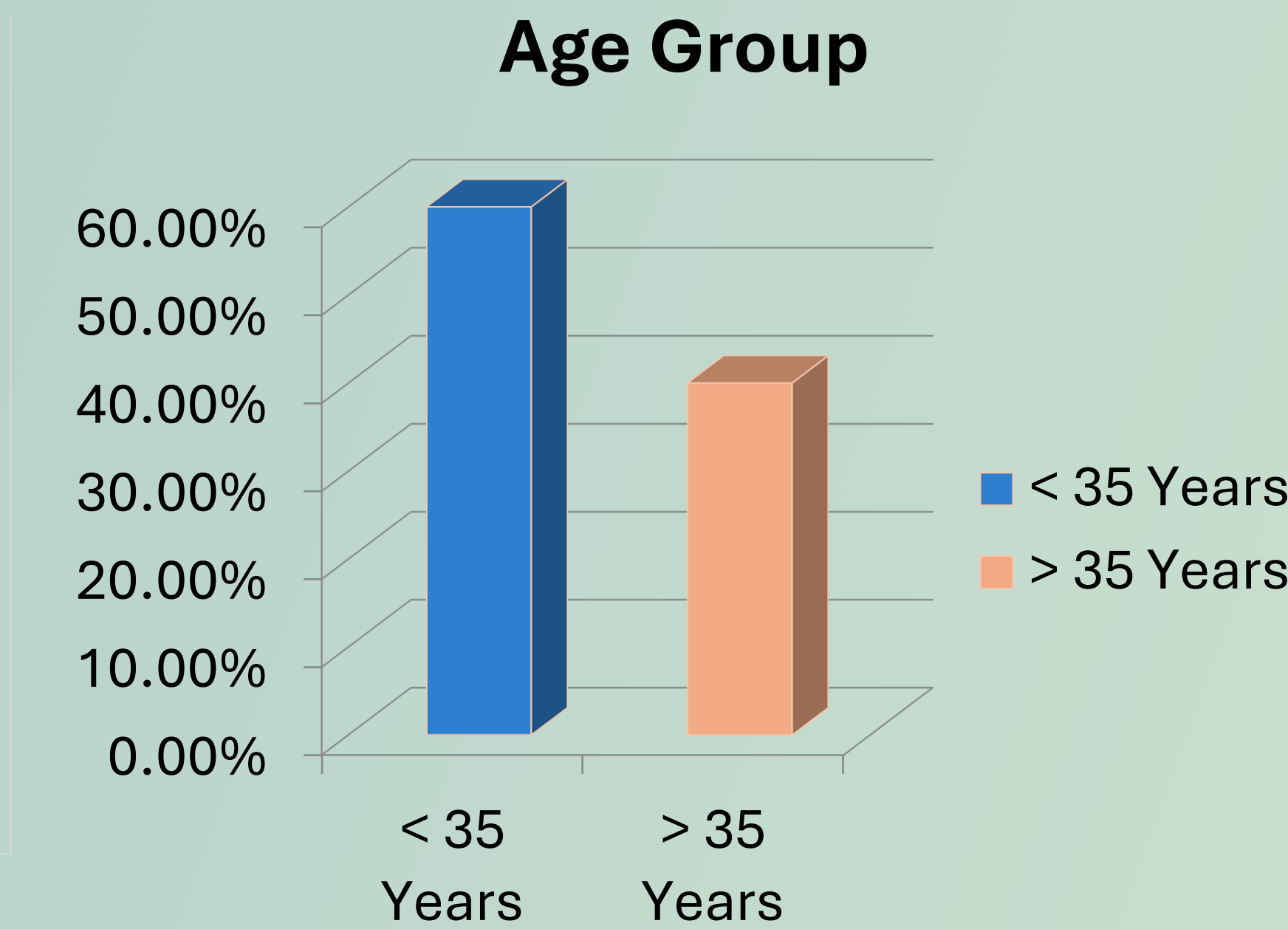
Our audit could not find any significant correlation with grades of doctors performing ECV and failure. However, Bogner et al found that the skill of the performing physician had a significant influence on success rate.⁵

Out of the 14 successful cases of ECV 9 (64%) had normal delivery ,one patient lost follow up and 4 cases had cesarean sections . The indication of cesarean sections among two cases were persisting breech after successful ECV which is reported in around 3%.⁶

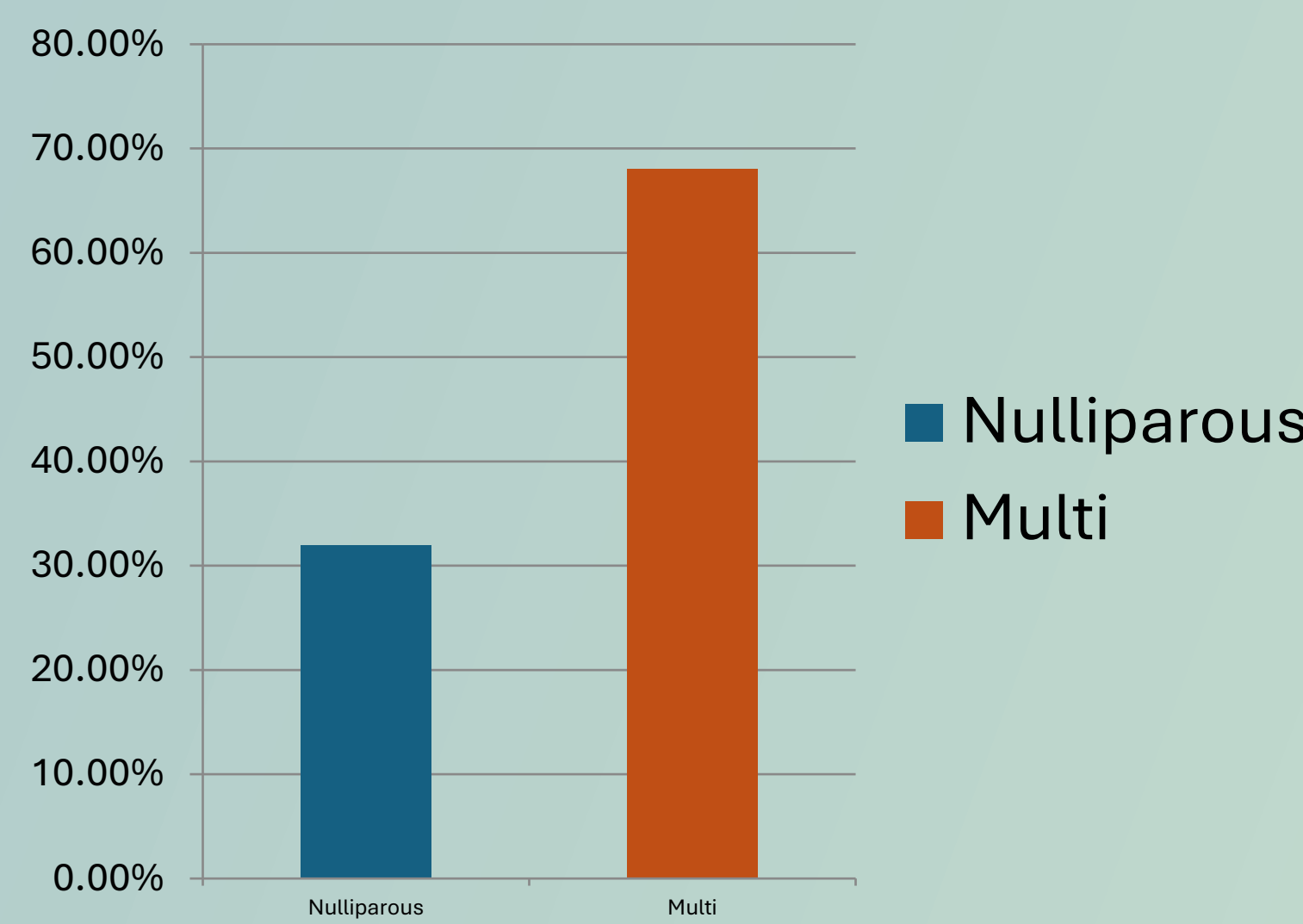
**14/42 (33%)cases were successful
28/42 (66.6%)were failed.**



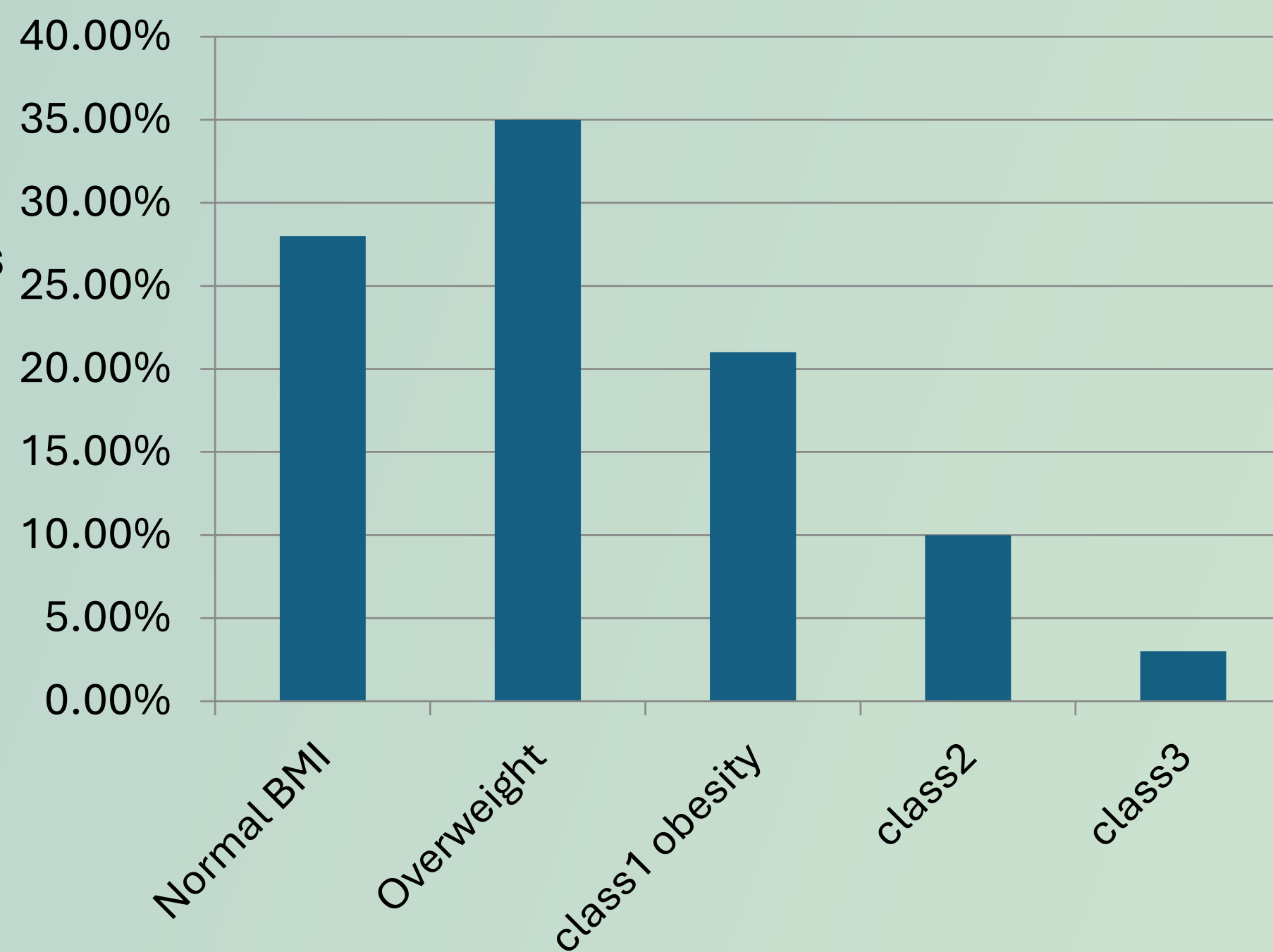
**17 patients were less than 35years
11 were 35 and above**



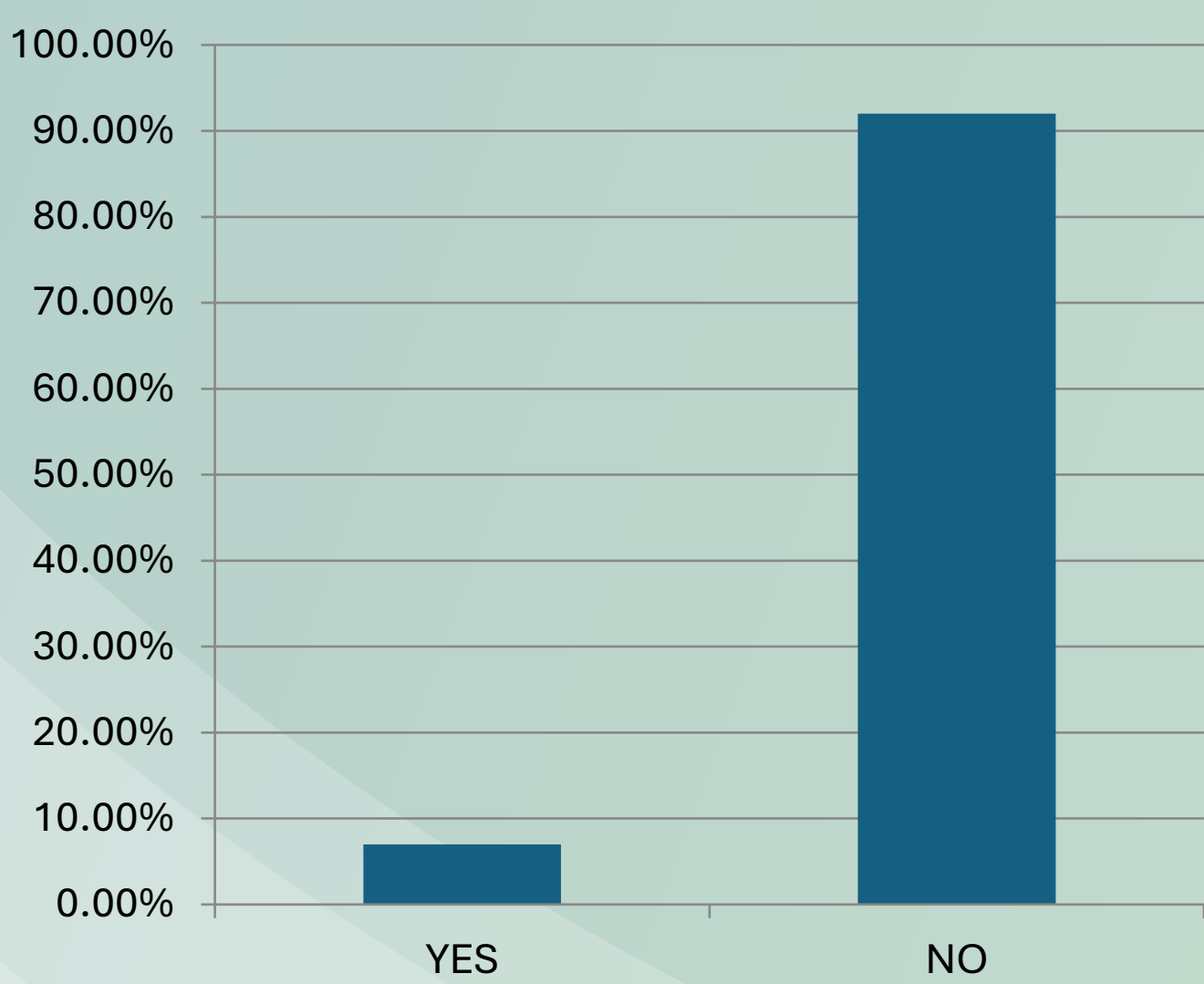
9cases were nulliparous,19cases were multiparous



**28.5% were in normal BMI/35% overweight
21%class1 obesity/10.7% calss2 obesity and
3.5% class3**



**92.8% did not receive tocolysis
7.1% received tocolysis**



Results: A total of 80 women were counselled and booked for ECV. 38were excluded from analysis due to reasons like defaulters(6),spontaneous version (23),deferred(2),refused on day of ECV(7).Data analysis was successfully performed in 42 women.

Most of the ECV (85%) were preformed at gestational age above 37weeks in both primigravidae and multigravidae. The overall success rate of ECV was 33.3% (14/42),66.6% ECV were failed (28/42).

Variables like age, parity, BMI, tocolysis, number of attempts, grade of the professional performing ECV were analyzed. Out of the failed cases majority (60%)were in less than 35years (17/28).Surprisingly 68% women were multiparous (19/28).

28.5% were in normal BMI category,35% were overweight.21% had class1 obesity,10.7% class2 obesity and 3.5% class3 obesity.

57.1% of the patients had only 1 attempt of ECV, while 42.8% had 2 attempts.

92.8% of the women did not receive tocolysis,7.1% received tocolysis.

25% of the cases were done by consultants,17% by senior specialists and 57.1% by specialist doctors. One of the failed case (7%) of failed cases had extended neck.

One of the failed case (7%) failed case had birthweight of 4.1kg

Conclusion: Overall, women who received tocolysis were significantly less .Majority of failed cases were in younger age group which is a non-modifiable variable. Successful ECV have proven to be improving the chance of normal vaginal delivery, hence the importance of improving the practice of ECV. Meticulous counselling of patients, proper case selection as per RCOG guidelines and locally approved protocol would reduce the number of defaulters, refusals and thus improve the success rate. A future audit including a larger sample size would probably give better information.

References:

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