

Bridging the Gap: Folic Acid Dosing for Obese Asian Women Preconception

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INTRODUCTION

Folic acid, a precursor to tetrahydrofolate, supports DNA and RNA synthesis [1]. During pregnancy, increased demand makes adequate dietary or supplemental intake essential to support development and reduce the risk of neural tube defects (NTDs). Studies show that maternal obesity can increase the risk of NTDs by almost 2 fold [2].

Objective

The RCOG recommends high-dose folic acid (5 mg) for obese women (BMI ≥ 30) to reduce NTD risk [3]. For Asian populations, obesity is defined as BMI ≥ 27.5 (WHO). This study assessed whether obese Asian women, based on these thresholds, were appropriately prescribed high-dose folic acid preconception.

DESIGN AND METHODS

Design

A retrospective audit was conducted at a District General Hospital serving a diverse, socioeconomically deprived population with ~5,200 annual births. Patient records from a one-month period were reviewed for BMI at booking, ethnicity, and folic acid dosage.

Methods

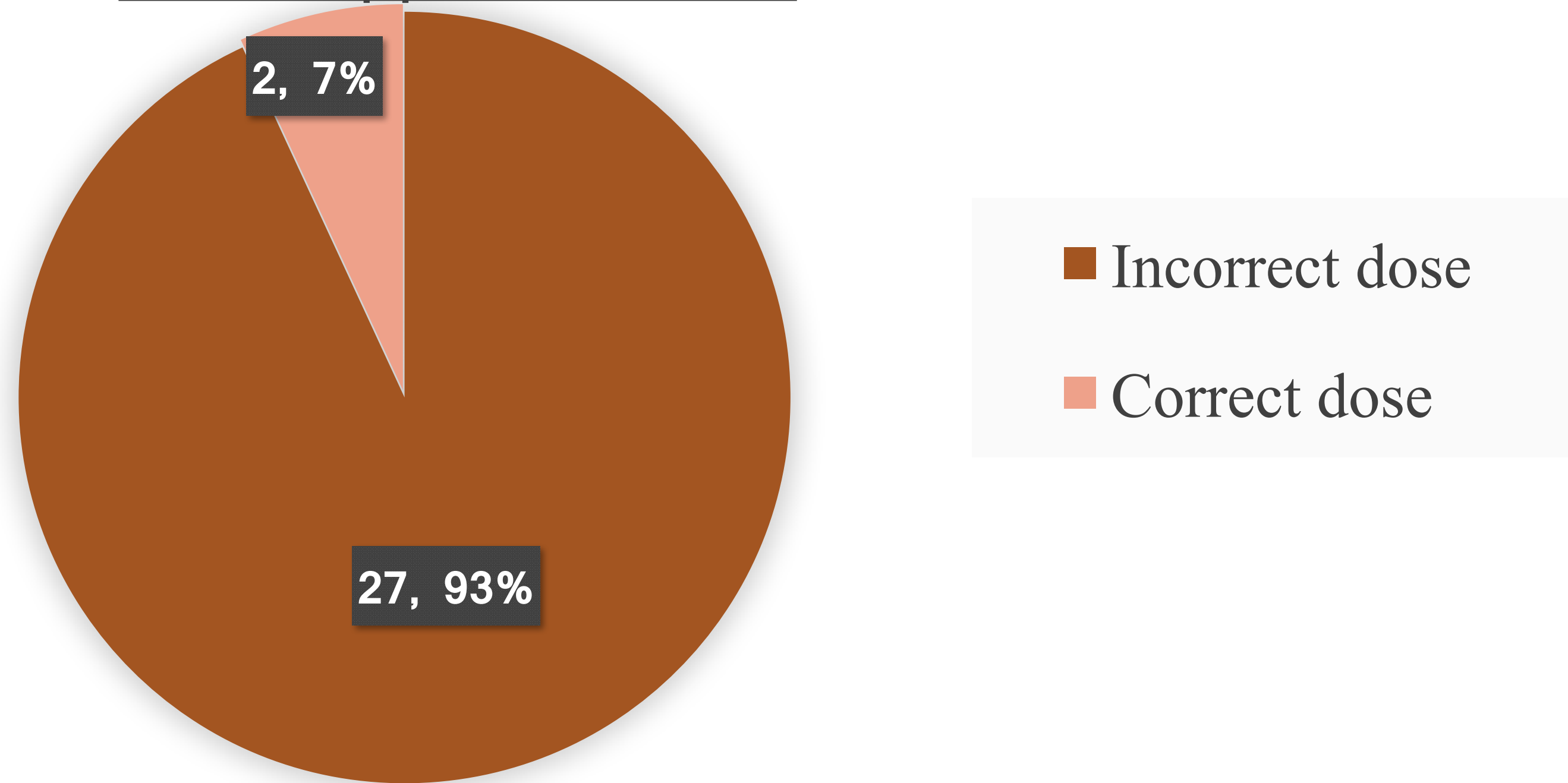
Data were collected from the electronic patient records of all patients attending their booking appointments in April 2024.

DEMOGRAPHICS

145 women attended their booking appointment in April 2024; their BMIs ranged from 16.55 to 46.78, with a median BMI of 26.

Characteristic	Number
White (including British, Irish & white European)	36
Asian or Asian British (South, South East & East).	58
Black or Black British (African & Caribbean)	21
Other	3
Unknown	1

Proportion of Obese Asian Women Receiving Adequate Folic Acid Supplementation



RESULTS

In the sampled cohort, 25% (n=35) had a BMI ≥ 30 and were incorrectly prescribed the standard 400 micrograms of folic acid instead of the recommended 5 milligram dose. Among the 29 Asian women classified as obese (BMI ≥ 27.5), only 2 (6.9%) were prescribed the correct high-dose folic acid (5mg), while the remaining 27 (93%) received the standard 400 mcg dose.

CONCLUSION

This audit highlights a significant gap between ethnicity-specific obesity guidelines and their clinical application. Despite recommendations for high-dose folic acid in obese Asian women to reduce NTD risk, few eligible patients received it.

Key actions include:

- **Raise awareness** of ethnicity-specific folic acid guidelines among clinicians.
- **Educate patients** in high-risk ethnic groups on appropriate supplementation.
- **Collaborate** with GPs, pharmacies, and public health teams.
- **Implement targeted education** as part of a quality improvement initiative.
- **Re-audit** to evaluate improvements in prescribing practices.

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