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Original Article

A COMPARATIVE STUDY OF IDA IN RURAL, INDUSTRIAL & URBAN AREA >50 YEARS OF AGE

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ABSTRACT

Background – Iron deficiency anaemia is not only one of the leading causes of maternal mortality and morbidity but also important health hazards of women above 50 years of age.

Aims & Objective - To find out the incidence iron deficiency anaemia (IDA) in above 50 years of age from rural, industrial & urban area.

Material & methods – This study was conducted at Gice clinic Kalyani from January 2015 to December 2021 from different areas in and around Kalyani, Nadia, W.B.

Observation- It was observed from study that anaemia <8gm Hb% were found to be more in industrial & rural areas as compare to urban area. Main reason was due to poor socio-economic status, lack of balanced diet, P.I.D. along with excessive menstruation.

Conclusion – Hence good nutrition, supplement of iron in food, prevention of pelvic infection and early diagnosis and treatment of gynaecological diseases were found to be very much important to prevent maternal mortality and mortality due to anaemia.

Key Words – Anaemia, Comparative Study, >50 years' age group, Rural, Industrial & Urban area.

INTRODUCTION

IDA above 50 years' age is among the most common medical problem in India. Women are at higher risk because of factors like menstrual blood loss, high parity, lack of iron in diet in additional to gastrointestinal problem. Hence early detection of IDA was found to be paramount important to prevent maternal morbidity and mortality too.

MATERIALS & METHODS

This is a prospective comparative study was conducted at Gice Clinic Kalyani, Nadia, West Bengal from January 2015 to December 2021. Every woman who attended Gice Clinic Gynaecology OPD or Emergency with age more than 50 years and willing to participate in the study was included,

Area: Rural, Industrial (Chemical, Pharmaceutical), Urban.

Total Number Cases: Rural -500, Industrial-500, Urban – 500 (1500 Cases).

Blood Sample: Peripheral Blood

Method: Sls Method.

OBSERVATIONS

It is interested to note that IDA (<8 gm%) were found to be more in industrial 22.2% (111) and rural areas – 21.2% (106) as compare to urban areas 3.2% (16) (Table 1).

Areas	Haemoglobin Level				
	< 8.0 gm%	8.1-10 gm%	10.1-12 gm%	12.1-14 gm%	> 14gm %
Rural	106 (21.2 %)	295 (59%)	60 (12%)	39 (7.4%)	0 (0%)
Industrial	111 (22.2%)	335 (67%)	32 (6.4%)	22 (4.4%)	0 (0%)
Urban	16 (3.2%)	206 (41.2%)	182 (36.4%)	96 (19.2%)	0 (0%)

Table 1: Hemoglobin level distribution according to areas among patients with age > 50years (N = 500 each group)

On further analysis it was also observed that 67% (335) from industrial and 59 % (295) from rural area were below <10 gm as compare to urban 41.2% (206) areas, indicating that even in urban area incidence of IDA is high due to lack of iron in food & nutrition etc.

		Number	Percentage
1. Socio-economic Status	Poor	645	43.0 %
	Average	700	46.7 %
	Good	155	10.3 %
2. Nutrition	Poor	803	53.5 %
	Average	400	26.7 %
	Good	297	19.8 %
3. Infection	Pelvic Infection	1295	86.3 %
	UTI	205	13.7 %
4. Menopause	Yes	1429	95.3 %
	No	71	4.7 %
5. Gynaecological Pathology	Fibroid	21	1.4 %
	DUB	19	1.3 %
	Ovarian Tumour	30	2.0 %

Table 2: Causative factors for anemia (N = 1500)

It appeared from (Table- 2) that most of the Patient were from Poor 43% (645) & average 40.7% (700) socio-economic background with a history of poor nutrition 53.5% (803), indicating that lack of iron in food or negligence to proper treatment for gynaecological diseases which were most visibly seen Industrial & Rural areas. Most of women were suffering from Pelvic Infection 86.3% (1295) & U.T.I. – 13.7% (205) in addition to lack of nutrition, which may be the additional causative factors for anaemia. 95.3% had history of menopause 95.3% (1429) before <50 years of age. Only 4.7% had history of Bleeding per vagina of which fibroid (1.4%), DUB (1.3%) & ovarian tumours (2%) indicating that due to blood loss during menstruation may cause IDA in addition of improper diet, lack of iron absorption.

DISCUSSION

Anaemia after 50 years of age is one of the important causes of maternal morbidity and mortality if not diagnose & treated early especially in women who had the history of pre-existing anaemia.

This study shows that out of 500 cases 22.2% (n-111) from in industrial, 21.2% (n-106) from rural areas have been suffering from anaemia < 8 gm as compare to urban area – 3.2% (n-16). Whereas *Tesfaye TS et al* found anemia prevalence was 20.1% among urban and 46.6% among rural area. At, Ethiopia 31% for rural and 16% for urban area women was found to have anemia in there 2011 health survey. (1-5)

It was interesting to note that anaemia in between 8.1 – 10 gm % was found to be more in Industrial area (67%) rural area (61%) as

compare to urban area 41.2% (206) indicated that proper care to be taken to prevent anaemia in these areas.

It is also significant to observe that anaemia in between 10 – 12 gm% was found to be better in urban area – 36.4% (182) as compare rural 12% (60) and industrial area 6.4% (32) possible reasons might be due to low socioeconomic status, low serving of iron-rich foods, lack of adequate nutrition information and a high number of illiterates in rural areas. (6-7)

As per the causes of anaemia, <10gm, it was observed from this study that poor socio-economic status with a history of poor nutrition were very much related with anemia. *Afaf A Tawfik* did a study at Egypt concluded similar results. (8)

Pelvic inflammatory disease and history of irregular bleeding or excessing bleeding (4.7%) caused by fibroid (1.4%), DUB (1.3%) ovarian tumor (2%) were found to be more important to cause anaemia. (9-10)

CONCLUSION

Hence it was concluded from the study that, poor socio-economic status, poor nutrition, P.I.D. & gynecological pathology was found to be more significant causes of anaemia at this age group.

Prevention of infection, good nutrition, supplement of iron, early diagnosis of cervical cancer and prompt surgical and medical intervention were found to be very much significant to prevent maternal morbidity and mortality.

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