Original Research Article

Retrospective Study of Profile of Infertile Couples Attending Infertility Clinic

Deepti Gupta[1*], Jagmohan Singh Dhakar[2], Devesh Kumar[3]

[1]Assistant Professor, Department of Obstetrics & Gynaecology, NSCB Medical College, Jabalpur, India

[2]Statistician, Department of Community Medicine, NSCB Medical College, Jabalpur, India

[3]Assistant Professor, Department of Anaesthesiology, SSMCH, Jabalpur, India

Abstract

Aim: This retrospective study was conducted to analyse the demographic profile of infertile couples.

Materials & Methods: Retrospective analysis of outpatient records of 500 infertile couples attending OPD of infertility clinic was done. Patient data, investigations and relevant history was entered in master chart. Descriptive analysis, means were calculated.

Result: The percentage of Primary infertility was 66.4% and that of secondary infertility was 33.4 %. Mean age of female 32.082 ± 5.9 years (20-57), Mean age of male 35.8 ± 6.3 years (20-62) and Mean duration of infertility 7.4 ± 5.6 (1-37). 71% patients were from urban areas, and 29% from rural areas. The distribution of causes Ovarian 21.2%, Tubal 16.6%, Male factor 17.4%, Unexplained 18.6%, Both male/ female 5.6%, Others 4.6%. 16% couples were un-investigated at the time of 1st visit.

Conclusion: majority of couples are presenting after the age of 30. Ovarian factor contributes significantly to the burden of disease.

Clinical Significance: it is proven that female age is single most important factor that affects outcomes of fertility treatment. Hence it is important to offer systematic thorough evaluation so that couple does not lose precious time. Considering the proportion of ovarian factor in light of ART act 2022, ovarian reserve assessment and ovarian rejuvenation strategies should be considered. In a country lie ours where most infertile couples are dependent on private treatment, it is prudent to evaluate and treat these patients in systematic and judicious manner so that precious time and money are not lost.

Key words: Infertile Couples, Demographics, Infertility

Introduction

Infertility is a Global health issue affecting 8-12% population [1]. Estimates vary because of multiple reasons. There has been an

Apparent and absolute increase in the incidence because of delay in childbearing, environmental toxins, improved diagnostics

etc. infertility is an Emotionally taxing and financially draining condition for the entire family. Infertility treatment is still not covered by most insurance policies and essentially a private sector domain. [2]

Aims:

This retrospective study was conducted to analyse the demographic profile of infertile couples attending speciality clinic in Madhya Pradesh.

- To determine the mean age female/ male in infertile couples.
- to determine the mean duration of infertility
- To determine percentage of primary and secondary infertility
- To determine the percentage of different causes of infertility
- To identify difference if any in causes of primary/ secondary infertility
- To identify predominant cause in different age groups.

Materials & Methods:

Retrospective analysis of outpatient records of 500 infertile couples attending OPD of infertility clinic was done. Patient data,

investigations and relevant history was entered in master chart. Descriptive analysis, means were calculated.

Result:

the percentage of Primary infertility was 66.4% and that of secondary infertility was 33.4 %. Mean age of female 32.082 ± 5.9 years (20-57), Mean age of male 35.8 ± 6.3 years (20-62) and Mean duration of infertility 7.4 ± 5.6 (1-37). 71% patients were from urban areas, and 29% from rural areas. 4.8% couples had history of second marriage.

The distribution of causes was Ovarian 21.2%, Tubal 16.6%, Male factor 17.4%, Unexplained 18.6%, Both male/ female 5.6%, Others 4.6%. 16% couples were un-investigated at the time of 1st visit.

in this study, maximum women belonged to age group of 30-34 yrs. in both primary and secondary infertility group. However, in primary infertility group 37.4 % women were in 21-29 yrs. compared to 23.5 in secondary. Amongst above 35 yrs. age group, 29.3 % women presented with primary infertility compared to 36.2% presenting with secondary infertility. (Table 1)

Table 1: distribution of patients according to age

Age group	Total	Primary infertility	Secondary infertility
20-24	48 (9.8%)	38 (11.4)	10 (6.0)
25-29	116 (23.2%)	87 (26.0)	29 (17.5)
30-34	178 (35.8%)	111 (33.2)	67 (40.4)
35-39	96 (19.2%)	65 (19.5)	31 (18.7)
> 40	62 (12%)	33 (9.8)	29 (17.5)
Total	500	334	166

On comparing different variables between primary and secondary infertility, 54.29% ovarian factor presented as primary infertility and 45.71 as secondary infertility, 67.6% tubal factor presented with primary infertility against 32.4% secondary infertility, 89.29% male factor presented as primary infertility

and 10.71% as secondary infertility, 62.37% presented of unexplained group presented as primary infertility and 37.63% with secondary. The percentage of un-investigated couples was similar in both groups as 56.52% with primary infertility and 43.48% with secondary infertility. (Table 2)

Table 2: difference in variables among primary infertility and secondary infertility subgroup

Variable	Primary infertility	Secondary infertility
Mean age female	31.4±5.9	33.5±5.6
Mean age male	35.2±6.3	37.3±6.1
Mean duration of infertility	6.5±5.5	9.3±5.4
Ovarian factor	54.29	45.71
Tubal factor	67.6	32.4
Male factor	89.29	10.71
Unexplained	62.37	37.63
Both male/ female	75	25
Others	63.75	36.25
Uninvestigated	56.52	43.48

When looking at correlation of different clinical variables and mean age of patients, it was observed that mean age of female in 1st marriage group was 31.9yr and in second marriage group it was 35.1 yrs. Women with ovarian factor presented at mean age of 37.1 yrs., those with tubal factor at 30.9 yrs., those with male factor at 29.5 yrs. and those with unexplained infertility at 30.3 yrs. Mean age of female presentation in uninvestigated subgroup was 29.3 yrs. The mean duration of infertility was highest in both partner group at 11.8 yrs. followed by 9.5 yrs. in ovarian factor group, followed by tubal factor and male factor. (Table 3)

Table 3: correlation of different clinical variables and mean age

Variable	Mean age female	Mean age male	Mean duration of infertility
1st marriage	31.9± 5.9	35.8±6.2	7.6±5.7
2nd marriage	35.1±5.5	37.9±8.3	4.2±3.5
Ovarian factor	37.1±6.1	40.2±6.0	9.5±6.7
Tubal factor	30.9±4.1	34.9±4.7	7.5±5.5
Male factor	29.5±4.6	34.0±5.9	6.0±4.3
Unexplained	30.3±4.2	34.4±4.5	6.1±4.0
Both partners	36.1±6.1	40.3±7.2	11.8±7.3
Others	32.3±5.5	35.8±6.0	7.3±4.9
Un-investigated couples	29.3±4.8	32.7±6.2	5.9±4.9

Amongst the women presenting with secondary infertility, majority 38.5% presented with inability to conceive after one living issue. Amongst those with more than one pregnancy, majority were ones with spontaneous early trimester miscarriages and only 3% had a living issue.

Table 4: obstetric parameters of women with secondary infertility

Gravida status	% Of women	Parity status	% Of women	Living children	% Of women
1	48.2	P1	39.1	L1	38.5
2	28.9	P2	13.2	L2	3
3	13.2	>P3	1.2		
>4	9.6		53.5		41.5

Amongst the women presenting with secondary infertility, majority 38.5% presented with inability to conceive after one living issue. Amongst those with more than one pregnancy, majority were ones with spontaneous early trimester miscarriages and only 3% had a living issue.

Discussion:

In study conducted by Ashwini Katole [2] it was observed that majority of the women (39.3%) belonged to 25–29 years of age group. The overall prevalence of primary infertility among reproductive age group women was 8.9%. this was a community-based study. Since ours was analysis of infertile couples attending specialty clinic, prevalence cannot be compared. Another study by Moumita Pal et al [3] observed that among the infertile women 115 (39.5%) were from urban and 176 (60.5%) were from the rural area. In our study 71% patients were from urban areas, and 29% from rural areas. This can be explained by the fact that our data is from speciality clinic based in urban area. They also observed that Mean age of female was 29.74 ± 5.9 yr. and male was 32.69 ± 6.06 Maximum primary infertility was in 21-25 and maximum secondary in 26-30. At our center, majority women were in 30-34 yr. age group.

Since age is single most important determinant affecting fertility outcomes, effort should be made to expedite evaluation and management in the 31.2% women presenting after the age of 35. Unfortunately, mean duration of infertility amongst un-investigated couples was 5.9 ± 4.9 yrs. It is known that fertility outcome is inversely associated with duration if infertility. In our study, tubal factor, male factor and unexplained were more frequently observed in the primary infertility subgroup. Since majority of secondary infertility group have early trimester losses, causes of pregnancy loss should also be kept in mind and looked for in this group.

6.8% unexplained between 20-29 years probably only need counseling and reassurance. 11.8% unexplained between 30-39 need proactive treatment for optimal outcomes. 8.8% uninvestigated couples were between 30-40 age group, can we expedite evaluation and referral? 17% ovarian factor above 35 years need to look at means to optimize ovarian reserve and treatment especially in wake of new ART act.

Conclusion:

majority of couples are presenting after the age of 30. Ovarian factor contributes significantly to the burden of disease.

Clinical Significance:

it is proven that female age is single most important factor that affects outcomes of fertility treatment. Hence it is important to offer systematic thorough evaluation so that couple does not lose precious time. Considering the proportion of ovarian factor in light of ART act 2022, ovarian reserve assessment and ovarian rejuvenation strategies should be considered. In a country like ours where most infertile couples are dependent on private treatment, it is prudent to evaluate and treat these patients in systematic and judicious manner so that precious time and money are not lost.

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