

CONTRACEPTION KNOWLEDGE AND PRACTICES AMONG FEMALES PRESENTED WITH CARDIAC DISEASES AT GULAB DEVI HOSPITAL LAHORE

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Contribution

UJI conceived the idea and designed the study. Data collection and manuscript writing was done by LL. All the authors contributed equally to the submitted manuscript.

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ABSTRACT

Objective: To assess the knowledge and practices of contraception in females presented with cardiac disease.

Methodology: This cross sectional study was conducted at obstetrics and gynaecology department, Gulab Devi Hospital, Lahore. A total of 246 consecutive female subjects referred to gynaecology and obstetrics ward by cardiology department were enrolled. Informed consent was taken and confidentiality was ensured. The cardiac disease of the respondent was noted and a detailed obstetric history, number of previous pregnancies, date of last child born and last menstrual period (LMP) was taken. Knowledge and practices of contraception was gathered through a structured questionnaire. Data were entered and analyzed by SPSS version 20.0. Categorical data were presented in the form of frequencies and percentages & presented through graphs while mean±SD was computed for quantitative data.

Results: The mean age of the study participants was 28±6.7 years. Majority of the study participants (48.7%) were from to the age group of 20-30 years. Regarding parity, 60 (24.3%) women had 01 child, 68 (27.6%) had 2 children, 65(26.4%) had 3 children and 53(21.5%) had 4 or more children. Regarding knowledge of contraception 110 (44.7%) females had no knowledge, 80 (32.5%) had partial knowledge and 56 (22.7%) had full knowledge about contraception. Out of 246 females only 92 (37.39%) had ever practiced contraception. Barrier method (Condoms) was the most common method reported by females that ever practiced contraception followed by surgical tubal ligation and intrauterine device.

Conclusion: Females with cardiac diseases should be treated by a group of experienced obstetrician, cardiologist, general physician and health care providers; each patient needs individual counselling regarding her family size to attain proper spacing between two children or as a continuous contraceptive method. If possible their cardiac disease should be treated before getting pregnant.

Keywords: Contraception, Cardiac Diseases, Reproductive Health, Maternal Health

INTRODUCTION

There are certain medical conditions in which first pregnancy or repeated pregnancies are a risk for maternal health. Cardiac diseases are serious conditions which cause maternal and fetal morbidity.¹ Maternal health has a profound effect on the whole family. In female with cardiac diseases the couple should have a clear understanding of the cardiac status of female.² Contraceptive methods help people to get their planned number of children and keep appropriate spacing between two pregnancies. Different contraceptive methods are available; these are hormonal methods such as oral contraceptive pills, injections and implants.³ Other methods are barrier methods, intrauterine contraceptive devices and surgical methods such as bilateral tubal ligation. Every method has its own, efficacy and side effects.³ Effective contraceptive use also decreases the unsafe abortion rates. In Pakistan a very few women take medical advice during pregnancy and delivery.⁴ The population who get medical help is better managed and counseled regarding contraception.⁵ Any female with cardiac disease is a high risk patient and the risk increases during pregnancy.⁶ The increased maternal morbidity and mortality during pregnancy is because of increased workload on heart and pulmonary edema.⁷ These females should clearly understand the need of short family size and spacing between two children. These females need combined care by cardiologist, obstetrician, anesthetist and pediatrician in a fully equipped center.⁸ The guidelines by WHO are available for contraceptive use according to the medical condition.⁹ In Pakistan contraceptive use is limited. All females do not have awareness and access to the centers. There are cultural and social barriers and fear of side effects which prevent them to seek help for contraception.¹⁰ The present study was done to assess the knowledge and practices of contraception in females with cardiac disease, so that these females can be counseled effectively for contraceptive use.

METHODOLOGY

This cross sectional study was conducted at obstetrics and gynaecology department, Gulab Devi Hospital, Lahore. A total of 246 consecutive female subjects referred to gynaecology and obstetrics ward from cardiology department were enrolled. Postmenopausal females and with other underlying disorders/pathology were excluded from the study. A brief structured questionnaire was formulated to record the data. The purpose and procedure of the study was disclosed to the eligible participants, confidentiality was ensured and informed consent was obtained prior to the conduct of the study. The cardiac disease of the participant was and a detailed obstetric history, number of previous pregnancies, date of last child born and last menstrual period (LMP) was taken. The

questionnaire gathered information on both spontaneous and probed knowledge of contraceptive methods. Respondents were probed by describing various methods of contraception and were classified as follows: No Knowledge: Females who have never heard of any method of contraception. Partial Knowledge: Females who have heard of at least one method of contraceptives. Full Knowledge: Females who spontaneously mentioned at least one method of contraceptives without being probed and also knows how to use it and where to obtain it. Ever Practiced Contraception: Females who used any method (of contraception) to avoid a pregnancy. Data were entered and analyzed by SPSS version 20.0. Categorical data were presented in the form of frequencies and percentages through graphs while mean \pm SD was computed for quantitative data.

RESULTS

The mean age of the study participants was 28 \pm 6.7 years. Participants were divided into different age groups as shown in Table.01. Majority of the study participants (48.7%) were belong to the age group of 20-30 years. There were 25 (10%) females of less than 20 years, 45(18.2%) were from 30-40 years of age and 56 (22.76%) were >40 years. Regarding their parity 60 (24.3%) had 1 child, 68 (27.6%) had 2 children, 65(26.4%) had 3 children and 53(21.5%) had 4 or more children.

Table.02 shows the spectrum of cardiac diseases in study participants. Most of them were having valvular heart disease (56.9%) followed by ischemic heart disease 55 (22.3%), cardiomyopathy 28(11.3%) and congenital heart disease 16(6.5%). 07 (2.8%) females reported to had surgically valve replaced.

TABLE.01: Descriptive Statistics of Study Participants (n=246)

Age in years n (%)	
<20	25 (10.1%)
20-29	120 (48.78%)
30-40	45 (18.29%)
>40	56 (22.76%)
Parity n (%)	
Para 1	60 (24.3%)
Para 2	68 (27.6%)
Para 3	65 (26.4%)
\geq Para 4	53 (21.5%)

Regarding knowledge of contraception 110 (44.7%) had no knowledge, 80 (32.5%) had partial knowledge and 56

(22.7%) had full knowledge about contraception as shown in Figure.01

Table.02: Spectrum of Cardiac Diseases in Study Participants (n=246)

Cardiac diseases	Frequency n=246
Valvular Heart Disease	140 (56.9%)
Ischemic Heart Disease	55 (22.3%)
Cardiomyopathy	28 (11.3%)
Congenital Heart Disease	16 (6.5%)
Post-surgical Valve Replacement	07 (2.8%)

Figure.01: Knowledge of Contraceptive(s)

Figure.02 shows frequency of females ever practiced contraception. Out of 246 females only 92 (37.39%) had ever practiced contraception.

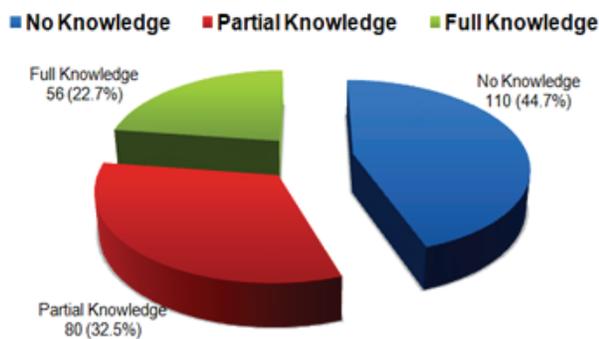


Figure.02 Frequency of females Ever Practiced

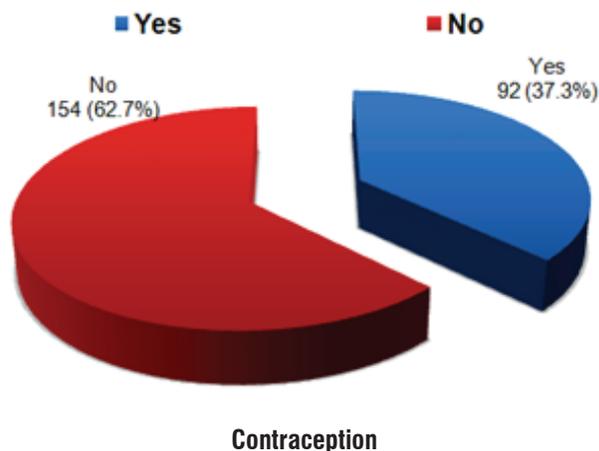


Table.03 shows frequency of various contraceptive methods in females ever practiced. The most common method was barrier method (condoms) that was used by 34 (37%) females, followed by surgical bilateral tubal ligation 25 (27%), Intrauterine contraceptive device 15 (16.5%) and injections 11 (12%). Oral contraceptive pills and implant were rarely used methods as reported by the study participants.

Table.03: Frequency of Various Contraceptive Methods Practiced (n=92)

Contraceptive Methods Practiced	Frequency n(%)
Barrier Method (Condoms)	34 (37%)
Bilateral Tubal ligation	25 (27%)
Intrauterine contraceptive device	15 (16.5%)
Injections	11 (12%)
Oral Contraceptive pills	06 (6.5%)
Implant (subdermal)	01 (1%)

DISCUSSION

The women with cardiac diseases constitute a high risk population.¹¹ The risk increases during pregnancy. To minimize the risk their cardiac disease should be treated by medical or surgical methods. They need effective free pregnancy counselling. These couples have to limit their family size and have adequate spacing between two children. Their pregnancies should be managed by a team of cardiologists, obstetrician, anesthetist and pediatrician.¹²

The spectrum of cardiac diseases observed in this study revealed that most of the females had valvular heart disease. They belong to younger age group i.e less than 40 years. Females with ischemic heart disease belonged to more than 40 years age group. The studied population had 3 or more children. Only 24.39% females had one child. They did not get re pregnancy counselling or antenatal checkups and had home deliveries. From this study it was found that most of them had incomplete knowledge of contraceptives. A study revealed that 35% of studied population got no advice about contraceptive. In 30% counselling was not proper.¹³ In Pakistan the general female population do not use contraception which is expected.¹⁴ Regarding the awareness about contraception a national study showed that more than 90% females of general population were aware of contraceptive methods.¹⁵ In our study 22.76% females had full knowledge and 32.52% had

partial knowledge of contraceptive methods. In our study the contraceptive methods were used by 37.39% females. The Pakistan demographic profile states that the contraceptive prevalence rate is 34%.¹⁶ In current study the use of contraceptive methods, the barrier method was used by most of the females. Sterilization by tubal ligation was second most common method. Injectable and intrauterine contraceptive device was used by few individuals. The oral contraceptive pills and implants were rarely used. A study states that barrier method is widely used by females with cardiac diseases followed by oral contraceptive pills.¹⁷ In current study the oral contraceptive pills were used by only 2.43% females. Oral contraceptive pills are used with great caution in females with cardiac disease. They increase the risk of coronary heart disease, thromboembolism and stroke.¹⁸⁻²⁰ In a study females with congenital heart diseases were treated surgically and cardiac defects were corrected.²¹ The use of intrauterine contraceptive device in our study was in limited numbers. There is a risk of bacterial endocarditis especially in females with valvular heart disease.²² It can be used with proper sterilized techniques. Long acting reversible contraceptives such as LNG-IUS and implants are safe.²³ The risk to cardiovascular system is not significant during their use.^{24,25} Contraceptive methods used by the study population in only 37.98%. In Pakistan very meager literature is available to show the contraceptive use in females with cardiac diseases. Internationally the studies are done to find out the use of contraception and counselling regarding pregnancy.^{7, 26, 27}

The data collected by current study revealed that females having cardiac disease are not getting appropriate information regarding safe pregnancy. These females and their spouse should be given in depth knowledge of contraception use in order to have safe pregnancy. Such cases should be treated by a group of experienced obstetrician, cardiologist, general physician and health care providers and counseled to get cardiac disease treatment before getting pregnant. Furthermore, each patient needs individual counselling regarding her family size to attain proper spacing between two children or as a continuous contraceptive method. Safe effective and acceptable contraceptive method is required by each particular cardiac patient.²⁸ The female or the couple should have regular follow ups.

LIMITATIONS

As it's a single center study, hence results cannot be generalized to the general population. Therefore, further studies are required to overcome the generalizability issue. Secondly the information regarding the educational status, residential status and economic status of the study participants were not evaluated and these variable do have some impact on outcome.

CONCLUSION

The study revealed that majority of the women had low level of knowledge and vast majority do not practice contraception due to poor knowledge. There is dire need to create awareness of contraception among women of reproductive age in general and specially among women with cardiac disease.

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