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Survey of Edward Syndrome Screening in 25-35 Years Old Women with Polycystic Ovarian Syndrome and Treated in the Ardabil City in 2016

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ABSTRACT

Objective: edward syndrome screening in women 35-25 years old with polycystic ovary syndrome

Methodology:

The statistical population is pregnant women in ardabil & sampling method is by census women who referred to a gynecologist. A sample of 100 35-25 year-old pregnant women, 50 pregnant women with no problems and 50 pregnant women with polycystic ovary syndrome were considered. The questionnaire contains information such as age, previous history of trisomy in the family and children, taking folic acid, marriage, parenthood, gestational age, history of smoking or alcohol, or take any other medicines, and was completed using interviews and extraction of office patient records. The results of the experiment answers were analyzed and and for data analysis using kolmogorov-smirnov test for normalization of the distribution of data and using pearson correlation test fir evaluate study hypotheses , the t test and statistical software , spss22, used in significance level of 05/0≥p .

Results:

The results show that average serum papp-a levels in mothers aged 35-25 with polycystic ovary syndrome under treatment in comparison with serum papp-a levels in the 35-25 year-old women with polycystic ovary syndrome and other mothers had a low level. The results show that average free β-hcg levels in mothers aged 35-25 with polycystic ovary syndrome under treatment in comparison with free β-hcg levels in the 35-25 year-old women with polycystic ovary syndrome and other mothers had a low level. The results show that average crl of mothers with polycystic ovary syndrome in comparison with crl of unaffected mothers for having a fetus with edwards syndrome has high level.

Conclusion:

The results show that none of the test used in this study has no chance for fetus affect by edward syndrome.

Keyword:
Screening, Edwards syndrome, polycystic ovary

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INTRODUCTION

Whereas, congenital anomalies like dowen syndrome and trizomies (21,18,13)does have so huge economical, social and cultural burden for families and society, then early detection of them on the first three months of pregnancy and as a result, ending these pregnanciescould avoid side effects of these anomalies.

Screening on different eras of pregnancy and by different methods has been done. One of these methods is quadruple marker test in which has been done on the second trimester of pregnancy. One of another recognition method is combined test in which has been done on the first trimester of pregnancy. In this test, we determine the amount of NT (Nuchal translucency),PAPP-A(Pregnancy – associated plasma protein – A)andfree beta-HCG(Human chorionic gonadotropin). On the 11-13 weeks of pregnancy, we determine the risk of addicting to anomalies.

Full integrated test is of methods for measuring NT and PAPP-A on the weeks of 10-13on pregnancy and its result has been followed by AFP (Alpha – Feteprotein),UE3(Unconjugated estriol),HCG and A INH on the weeks of 15-18on pregnancy. According to high predominance of polycystic ovary syndrome among infertile women and due to not having oocyte, then oocyte and ovulation in these people have been done by drug treatment. We suggest increasing the possibility of phenomenon of segregation of chromosomes during ovulation in these people and then increasing the risk of fetuses with chromosomal abnormalities.

It seems there is no important study in this regard and this study could prepare new perspectives on the treatment of polycystic ovary syndrome and fetal health.in this study, we are examining the relation of Edwards's syndrome among 25-35years old mothers having polycystic ovary syndrome and are being treated on Ardebil city.

Study method:

This study is applicable from target view and from method view is descriptive and observational one. Gathering information instrument is by observing and test and also questionnaire and interviewing pregnant womens. The method of sampling is as women census reffering to women specialist.sample volume in this study is about 100 pregnant womens.

In order to analyse data, we have used of chi square test and t-test, anova, paired samples test, and in order tp examing data correlation , we have used of Pearson analysis . We have usedof SPSSV17 software in order to analyse data.

Findings:

We have used of kalmogrove- smirnove test for data distribution naturality and in order to test study hypothesis, we have used of Pearson correlation test, t-test and SPSS22 software on p ≤۰/۰۵meaningful level.

Table1: The mean and standard deviation of the testee age and weight

The most	The least	St.deviation	mean	variable
35	**25**	**3.32**	**28.52**	**Age**
89	**46**	**9.41**	**62.12**	**Weight**

According to table 1 results, we conclude the mean age of testees was 28.52±3.32 years old and their weight mean was 62.12±9.41 kilogram.

Hypothesis1: serum level of PAPP-A on mothers about 25-35years old having polycystic ovary syndrome and being treated would decrease.

Table2: determing the differences of polycystic ovary syndrome and being treated

t-critical	Meaningful level	Freedom degree	t-accounted	Lown test		Target od test
				sig	f-test	
1.96	0.007	85.87	-27.78	0.001	13.021	PAPP-A level

According to table2, meaningful level of lowen test ontreating group is less than 0.05 and shows the two groups' the same variance violence in which we should use of t-substitute and in continue the amount of t-accounted on treating group(t=27.78) on vconfidence level of 95%and freedom degree of85 on t-critical table(t=1.96) is larger, then we conclude there is meaningful differences among PAPP-A level on the groups of mothers, in order to measure the amount of this difference, we have used of this formula in which is equal to 0.87 and according to kohen interpretation(1988)is due to great effect.

Hypothesis2: β-hCG free level on 25-35years old mothers having polycystic ovary syndrome and treating would decreases.

Table3: determining free β-hCGlevel differences

t-critical	meaningful level	Freedom degree	t-accounted	Lowen test		Test target
				Sig	f-test	
1.96	0.001	98	11.01	0.230	1.456	Free level - β-hCG

According to table3, meaningful level of lowen test for examining the two groups sameness variance violence is more than 0.05 and shows using the basic t and in continue t- accounted on treating (tp=11.01)on confidence level of 95%and freedom degree of 98 from t-critical table is lrager(tb=1.96),therefore we conclude there is meaningful differences among the mean free level of β-hCG on the two mothers groups.

Hypothesis3: mothers having polycystic ovarian syndrome does have higher risk than non infected mothers for having a Fetuses with Edward syndrome.

Table3: examining the risk among mothers

t-critical	Meaningful level	Freedom degree	t- accounted	Lowen test		Target test
				sig	f-test	
1.96	0.001	98	14.74	0.51	0.437	CRL

According to table3, meaningful level of lowen test has been used for examining variance violence sameness on the two groups in which is more than 0.05 and shows using t-basic and in continue the amount of t- accounted (tp=14.74) on confidence level of 95% and freedom degree of 98 on t-critical table (tb=1.96) is larger, therefore we conclude mothers having polycystic ovary syndrome are on higher risk than non infected mothers for having fetus by Edward syndrome.

Discussion and conclusion:

The result of analyzing study findings shows the mean level of PAPP-A serum on 25-35years old mothers having polycystic ovary syndrome on treating in comparison to PAPP-A serum level on 25-35years old mothers having polycystic ovary syndrome to other mothers havinf very low level. The result of study findings analysis shows the mean level of free β-hCG on 25-35years ole mothers having polysystic ovary syndrome on treatment in comparison to the mean level of free β-hCG on 25-35years old mothers having polycystic ovary syndrome than other mothers are on very low level.

Study findings analysis shows the mean CRL of mothers having plolycystic ovary syndrome in comparison to non infected mothers having fetus by Edward syndrome are on more higher level.

The result of analyzing study findings showed none of testee participated in this study does have the risk of Edward syndrome and in clear way, 0%of mothers 25-35years old having polycystic ovary syndrome treating on Ardebile on 2016 have has the risk of fetus by Edward syndrome. Also, the result has shown mothers infected by polycystic ovary syndrome do have higher risk than mothers none infected for having fetus by Edward syndrome.

In this regard, on a study on 56376 pregnant women by singleton , the risk of trizome13, 21, 18 based on mother age and measuring Nuchal translucency and mother serum markers has been measured.(combined)in this study, FPR for forecasting dowen syndrome has been estimated about 3%. This number on combined examination on trizome13,18 has been about 0.2%.

On a study on 2010 pregnant mothers by singleton,we have used of Free-beta HCG and PAPP-A as laboratory evaluation and of NT as sonographic measure for risk determining factor on trizome13,18, 21 .on sample population of women more than 35years old, test sensitivity was 92%. And for dowen syndrome was 14.2% and for trizomy18, was 1.6%.

On a study has been done on China, among 1990women, 57 does have twin, 31%of them have has more than 35years old6.1%of fetus has been screen-positive. PPV test has been reported about 16.7%. The result of test has shown combined test on the first trimester for china society was very good.

In another study that was conducted in 2006 by Mr. Ndryst et al, 352 patients with trisomy 18 during the years 2003 to 1964 were studied. They found that median survival was 4 days and only one percent of all newborns up to 10 days after birth survived, and survival was longer in females.

In another study that was conducted in 2006 by Mr. Gook and his colleagues examined the clinical protests and methods of treatment, prognosis and prenatal diagnosis of trisomy 18 cases examined. They studied 20 infants over a period of 5 years. Median survival was 20 days and most patients despite aggressive treatment because of heart problems, prematurity, infection and malfunction of various organs died. Considering the poor prognosis of these patients, the karyotype is important to avoid invasive surgery in these patients.

In a study by Pvntz and et,al. in 2006, in the children's department of u.s investigates cases of maternal trisomy 13 and 18 defects and Found that the prevalence of trisomy 18 in 10,000 live births is about 29/1 and 61 percent of girls and 45 percent of them had suffered a heart abnormality. More than half of them have died before discharge.

Therefore, according to the results, it seems recognition of this trisomy as trisomy 21 is very important in order to avoid aggressive surgery on infants as if it has been approved.in addition, on future pregnancy, by doing aminosynthesis on the first trimester, prerecognize it and if fetus has been involved then we would do legal abortion.

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