ORIGINAL RESEARCH PAPER

Gynaecology

KEY WORDS: Bad obstetric history, Hypothyroidism, Antiphospholipid antibody syndrome.

A PROSPECTIVE STUDY ON BAD OBSTETRIC HISTORY IN PREGNENET WOMEN

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ABSTRACT

Pregnancy loss is a daunting and difficult problem for families and clinicians. Pregnancy loss is synonymous with responsibility, pain, and states of depression. For the mother, birth and death is a tragic event and of importance in clinical practise. The key purpose of this study is to determine the risk factors and outcome of births in Bad Obstetric History (BOH) cases and to separate the outcomes from the outcome of treatment. A prospective study from June 2019 to May 2020 was examined on 64 pregnancies having BOH (history of unexplained stillbirth / neonatal death, three or more consecutive abortions, etc.). There was a critical higher incidence of recurrent pregnancy loss (cervical incompetence), malpresentation, hypertension, APLA, preterm deliveries, overt diabetes mellitus, hypothyroidism, and caesarean section between groups (P<0.05). Only 34 (53.13%) women out of 64 in the BOH group recognized to have the possible factor responsible for pregnancy losses. In 30 (46.87%), no probable causes could be identified. 11 (17.19%) patients identified with more than one risk factor. The number of percentages of pregnancies with BOH, the positive result forum risk factors, were not established. The BOH party, however, displayed substantially more APLA, hypertension, malpresentation, cervical incompetence, LSCS, MSL, preterm deliveries, hypothyroidism, and caesarean section.

INTRODUCTION:-

Pregnancy loss is a defeating and challenging issue for couples and practicians. Failure of pregnancy is associated with liability, discomfort, and depressive states. It is true when the patient presents with fallowing pregnancy with related problems of infertility, failure or irregular ovulation, irregular menses, a presence of uterine fibroids, advancing age, a family history of miscarriage, medical and a prior history of pregnancy complications. The anti-phospholipid antibody (APLA) syndrome, including Lupus Anticoagulant (LA) and Anti-Cardiolipin Antibodies (ACL) and anti-bodies to Beta-2 cardiolipin-1, are to be present in the syndrome. So women with APLA can miscarry at any stage of pregnancy and also these women high risk in later pregnancy and associate with obstetric complications like recurrent fetal loss, preterm birth, fetal growth restriction, preeclampsia, and intrauterine fetal demise. When the evaluation of women for recurrent pregnancy loss is done, the primary contributing factor can be identified in 40–50%. Gestational Diabetes Mellitus (GDM) can be associated with significant mortality and morbidity in the foetus and new-born. Overt hypothyroidism or hyperthyroidism is associated with increased foetal loss.

MATERIAL AND METHODS:-

A prospective study was carried out from June 2019 to May 2020 on 64 pregnancies having BOH (history of unexplained stillbirth/neonatal death, three or more consecutive abortions, etc). The test group was studied in terms of age, gravidae, parity, risk factors, and outcome in terms of preterm delivery, stillbirth, and mode of delivery, birth weight, pregnancy complications, and fatal distress. These parameters were compared with a systematic, randomly selected sample of 200 from the rest of total 1300 deliveries. Essential guidance and treatment are given in cases of hypothyroidism, chronic hypertension, preeclampsia, APLA, SLE, Overt diabetes, gestational diabetes, and other risks factors.

Statistical Analysis:-

The data has been entered into MS-Excel and statistical analysis was done by using IBM SPSS 25.0. For categorical variables, the data values were expressed as number and percentages and to test the association between groups, Fisher's exact test was used. For continuous variables, the data values were expressed as mean and standard deviation and to test the association between two groups, student's t-tet was used. All the p-values are having less than 0.05 were considered as statistical significant.

RESULTS:-

The mean±SD age was 26.48±2.83 in a BOH group and 26.17±3.49 in control group. The incidence of BOH was to be 6.17%. Only 34 (53.13%) women out of 64 in the BOH group recognized to have the possible factor responsible for pregnancy losses. In 30 (46.87%), no probable causes could be identified. 11 (17.19%) patients identified with more than one risk factor. Table-1 shows that there was no significant difference between the two groups regarding age (P = 0.416), parity (P = 0.815), Body Mass Index (P=0.809), and birth weight of newborn (P=0.328) respectively.

Table 1: Comparison Between BOH Group And Control Group

	Control group (n=200)	BOH group (n=64)	t value	P value
Age	25.08 ± 3.24	25.46 ± 3.28	0.814	0.416
BMI	23.46 ± 3.68	23.58 ± 2.67	0.241	0.809
Parity	1.39 ± 0.88	1.42 ± 0.92	0.235	0.815
Birth weight (Kg)	2.94 ± 0.54	2.87 ± 0.33	-0.979	0.328

Table 2 showed the comparison between two groups in maternal and fetal complications. APLA (12.50% *Vs.*3.5%; P=0.013), hypertension (25.00% *Vs.* 5.00%; P<0.0001), malpresentation (15.63% *Vs.* 6.00%; P=0.034), cervical incompetence (4.69% *Vs.* 0.00%; P=0.002), preterm deliveries (17.19% *Vs.* 6.50%; P=0.021) and caesarean section (64.06% *Vs.* 23.50%; P<0.0001) were found significantly more in BOH group.

However, hypothyroid (7.81% *Vs.* 5.85%; P=0.563), GDM (3.13% *Vs.* 2.50%; P=0.678), PROM (14.06% *Vs.* 11.00%; P=0.508), fetal distress (12.50% *Vs.* 9.50%; P=0.483) and Meconium Stained Liquor (18.75% *Vs.* 15.5%; P=0.562) were found more in BOH group brrut none of them were found to be statistically significant and these were shown in Figure-1.

Table 2: Comparison Between BOH Group And Control

Group In Medical Complications And Fetal Outcome

Variables	Control group (n=200)	BOH group (n=64)	P-value
Anti-phospholipids antibody	7 (3.5%)	8 (12.5%)	0.013*
Hypothyroid	12 (5.85%)	5 (7.81%)	0.563
Tuberculosis under treatment	2 (1.0%)	1 (1.56%)	0.567
Gestational Diabetes Mellitus	5 (2.5%)	2 (3.13%)	0.678
Hypertension	10 (5.00%)	16 (25.00%)	<0.0001*
Premature Rupture of Membranes	22 (11.00%)	9 (14.06%)	0.508
Ante Partum Haemorrhage	11 (5.50%)	2 (3.13%)	0.740
Malpresentation	12 (6.00%)	10 (15.63%)	0.034*
Cervical incompetence	0 (0.00%)	3 (4.69%)	0.002*
Fetal distress	19 (9.50%)	8 (12.50%)	0.483
LSCS	47 (23.50%)	41 (64.06%)	<0.0001*
Vacuum/forceps delivery	13 (6.50%)	3 (4.69%)	0.768
Meconium Stained Liquor	31 (15.5%)	12 (18.75 %)	0.562
Preterm delivery	13 (6.50%)	11 (17.19%)	0.021*
Still birth	1 (0.33%)	0 (0.00%)	0.644

**P<0.05 - Significant,*

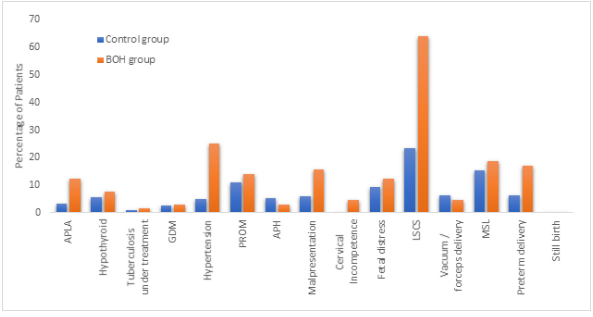

Figure-1: Comparison Between Two Groups In Maternal And Fetal Complications

DISCUSSION

The overall incidence of BOH in literature is variable with significant etiological heterogeneity. Depending on the age of the parents, and many other confounding variables e.g., repeated biochemical pregnancy losses, the inclusion of two successive pregnancy losses in the test group may lead to different results and conclusions [7,10]. So many women experience two early miscarriages that it should be considered a normal phenomenon. On the other hand, the theoretical risk of experiencing recurring pregnancy loss as a consequence of consecutive chromosome-abnormal miscarriages declines rapidly with the number of pregnancy losses. By this, the overwhelming majority of abort uses from patients with four or more miscarriages are found to have normal karyotype [2,3,9]. In this study, the incidence of BOH was found to be 6.17%, including 34 (53.13%) with a history of unexplained stillbirth or neonatal loss. Age, obesity, and high parity have been shown to be independent risk factors for RPL and stillbirth. [1] In this study, there was no statistically significant difference between the two groups Some studies have shown that genetic factors and socioeconomic factors were the reasons for this phenomenon leading to repeat adverse obstetric outcomes [6,12]. However, this was not seen in this study. In a study, 80% success rate for the treatment of APLA syndrome by this approach [13]. In this study, the prevalence of APLA in the test group was 12.50%, and after treatment with low dose aspirin and heparin, the outcome was excellent in all cases. Overt hypothyroidism in pregnancy is rare because of its association with anovulation and infertility. There was a higher incidence of tuberculosis and GDM in the BOH group, but none of it was found statistically significant. In this study, hypertension was found a statistically significant factor in the BOH group, as also seen in other studies [5, 8, 14]. PROM is a risk factor for preterm delivery and neonatal infection, was identified more frequently in the test group than the control group. No significant difference was found in the incidence of antepartum hemorrhage between two groups [14]. The low prevalence in BOH group suggests that APH may not be an essential factor in BOH in this study. Malpresentation and cervical incompetence were found significantly higher in the BOH group. High incidence of uterine anatomic anomalies predisposes to cervical incompetence and malpresentation [11]. Pregnancy outcome in terms of fetal distress, cesarean delivery, preterm delivery, vacuum/forceps, meconium-stained liquor, and stillbirth were not found significantly different between two groups. [4] In this study, 53.13% women out of 64 in the BOH group were identified to have possible factors responsible for pregnancy losses. In 46.87%, no probable causes could be identified. 17.19% patients were identified with more than one risk factor. APLA, hypertension, malpresentation, cervical incompetence, preterm delivery, and caesarean section were found significantly more in the BOH group.

CONCLUSION

Recurrent pregnancy loss, malpresentation, hypertension, APLA, preterm deliveries, overt diabetes mellitus, hypothyroidism, and caesarean section were found very much in the BOH group. In a more significant number of percentages of pregnancies with BOH, the risk factors forum favorable outcome was not identified. Still, pregnancy outcome was generally good in subsequent pregnancies with optimal antenatal care and advice.

REFERENCES:-

1. Andersen, A. M. N., Wohlfahrt, J., Christens, P., Olsen, J., & Melbye, M. (2000). Maternal age and fetal loss: population based register linkage study. Bmj, 320(7251), 1708-1712.
2. Christiansen, O. B. (1996). A fresh look at the causes and treatments of recurrent miscarriage, especially its immunological aspects. Human Reproduction Update, 2(4), 271-293.
3. Christiansen, O. B., Pedersen, B., Rosgaard, A., & Husth, M. (2002). A randomized, double-blind, placebo-controlled trial of intravenous immunoglobulin in the prevention of recurrent miscarriage: evidence for a therapeutic effect in women with secondary recurrent miscarriage. Human Reproduction, 17(3), 809-816.
4. Daya, S., & Stephenson, M. D. (1996). Frequency of factors associated with habitual abortion in 197 couples. Fertility and sterility, 66(1), 24-29.
5. Deodhar, J., & Jarad, R. (1999). Study of the prevalence of and high risk factors for fetal malnutrition in term newborns. Annals of tropical paediatrics, 19(3), 273-277.
6. Garg, A. K. (2000). A study of factors affecting LBW. Indian J Community Med, 25, 4-6.
7. Kruse, C., Rosgaard, A., Steffensen, R., Varming, K., Jensenius, J. C., & Christiansen, O. B. (2002). Low serum level of mannan-binding lectin is a determinant for pregnancy outcome in women with recurrent spontaneous abortion. American journal of obstetrics and gynecology, 187(5), 1313-1320.
8. Nuzhat, A., Pranathi, R., & Evita, F. (2006). Hypothyroidism in pregnancy: Is universal screening needed?. JOURNAL OF OBSTETRICS AND GYNECOLOGY OF INDIA, 56(6), 495-498.
9. Ogasawara, M., Aoki, K., Okada, S., & Suzumori, K. (2000). Embryonic karyotype of abortuses in relation to the number of previous miscarriages. Fertility and sterility, 73(2), 300-304.
10. Pfeiffer, K. A., Fimmers, R., Engels, G., van Der Ven, H., & van Der Ven, K. (2001). The HLA-G genotype is potentially associated with idiopathic recurrent spontaneous abortion. MHR: Basic science of reproductive medicine, 7(4), 373-378.
11. Salim, R., Regan, L., Woelfer, B., Backos, M., & Jurkovic, D. (2003). A comparative study of the morphology of congenital uterine anomalies in women with and without a history of recurrent first trimester miscarriage. Human Reproduction, 18(1), 162-166.
12. Smith, G. C., Shah, I., Pell, J. P., Crossley, J. A., & Dobbie, R. (2007). Maternal obesity in early pregnancy and risk of spontaneous and elective preterm deliveries: a retrospective cohort study. American journal of public health, 97(1), 157-162.
13. Spegiorin, L. C. J. F., de Godoy, J. M. P., & Orliani, A. H. (2007). Evaluation of prophylaxis using low doses of heparin associated with aspirin in pregnancy with multiple miscarriages and high antiphospholipid antibody levels-preliminary report. Archives of Medical Science, 3(1), 43-45.
14. Surkan, P. J., Stephansson, O., Dickman, P. W., & Cnattingius, S. (2004). Previous preterm and small-for-gestational-age births and the subsequent risk of stillbirth. New England Journal of Medicine, 350(8), 777-785.