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RESEARCH ARTICLE

A COMPARATIVE STUDY OF COMPLICATIONS OF MEDICAL TERMINATION OF PREGNANCY DONE UNDER LOCAL, GENERAL AND DISSOCIATED ANAESTHESIA.

Dr Renu Garg.

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Key words:-
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Abstract

Objective:- Medical termination of pregnancy is a common procedure performed under different type of anaesthesia.This study shows complications under different types of anaesthesia like- Difficulty in cervical dilatation,uterine perforation and excessive bleeding per vaginum.Present study is aimed in determining safety,efficacy and complications under different types of anaesthesia.

Material and ,Method:- Study was conducted in 360 patients with pregnancy upto 12 weeks.Suction evacuation was method used for MTP.

Results:- Cervical tear was more in patients under general and dissociated anaesthesia .Difficulty in cervical dilatation was in local anaesthesia.Perforation and excessive bleeding per vaginum was more in general anaesthesia.

Conclusion:- All anaesthesia are good .Complications are dependent on competence of surgeon also.Patients under local anaesthesia are little uncomfortable but have faster recovery. On the other hand patients are comfortable under general or dissociated anaesthesia but have other complications.

Introduction:-

Abortion is a term applied to termination of pregnancy before the period of viability.For scientific purposes term abortion is applied for foetuses expelled at gestation age of less than 20 weeks.An abortion can be spontaneous or induced

Methods of termination of pregnancy:-

First trimester pregnancy:-
Menstrual Regulation
Dilatation and Suction Curettage
Dilatation and Surgical curettage

Second Trimester Pregnancy:-
Surgical Evacuation
Intra-amniotic instillation of drugs
Extra-amniotic instillation of drugs

Corresponding Author:- Dr Renu Garg.

Extrauterine methods:-
Suction Curettage is one of the most efficient method of first trimester termination of pregnancy.
This procedure can be performed easily,has low failure rate and with low complications.

Aims and Objectives:-
In present study we have compared complications in medical termination of pregnancy performed under different methods of anaesthesia.

Material and Method:-
A total of 360 cases were studied in present study with pregnancy between 6-12 weeks.of gestational age.Suction evacuation was used to terminate pregnancy in all the cases.

Criteria For Selection of Cases:-
Patients with pregnancy less than 12 weeks.
Not associated with-
a. Cardiovascular Disease
b. Psychiatric history
c. H/O Epilepsy
d. Anaemia
e. Pelvic Inflammatory Disease

Detailed history of patient taken including-age,marital status,number of living children,number of previous medical termination of pregnancy,any relevant past medical or surgical history and complications.

Complete general examination and local examination (Per abdominal,Per speculum and Per vaginalExamination)of patient was done.

If any abnormality found during history or examination patient was advised to take treatment.All patients were advised to use contraceptives after MTP if they had not completed family and tubectomy if they had completed family.

All patients were explained about procedure and complications.

Investigations:-
In all patients routine investigations-Hb%,Total and differential leucocyte counts,Random Blood Sugar,Bleeding and Clotting Time,ABO/RH,HIV,HbsAg,VDRL and HCV was done.If any abnormality was found during investigations it was managed prior to the procedure.

Date and time for Medical Termination of Pregnancy was decided.

Preparation of Patient:-
Procedure was explained to all patients.
Written consent of all patients was taken.
Shaving and part preparation was done.
Innstructions of anaesthetist were followed.

Anaesthesia:-
One of the following anaesthesia was given to patients-
General Anaesthesia
Local Anaesthesia
Dissociated Anaesthesia

General Anaesthesia:-
General anaesthetics are agents which bring about loss of all modalities of sensations.Depths of anaesthesia appropriate for the conduct of surgical procedure can be achieved with a wide variety of drugs either alone or more in combination.

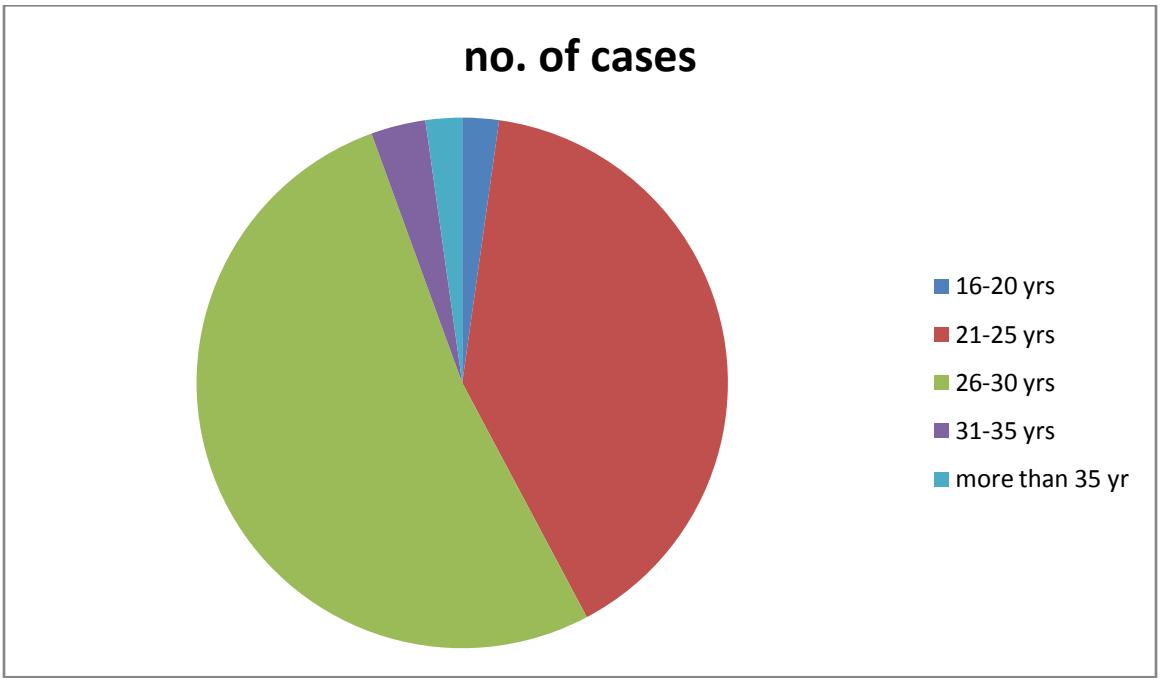
Local Anaesthesia:-
Local anaesthetics are drugs which when applied to peripheral nerve tissue block nerve conduction and abolishes all sensation in the part supplied by the nerve.Local anaesthetics in contact with nerve trunk causes both sensory and motor paralysis in the area innervated.Practical advantage of these compounds is that their action is reversible There use is followed by Complete recovery in nerve function with no evidence of structural damage to nerve fibre or cell.

Dissociative Anaesthesia:-
The term dissociation is deriverd from –strong feeling of dissociation from environment that is experienced by subject when such an agent is administered.

Observation and Results:-

Age distribution of cases:-

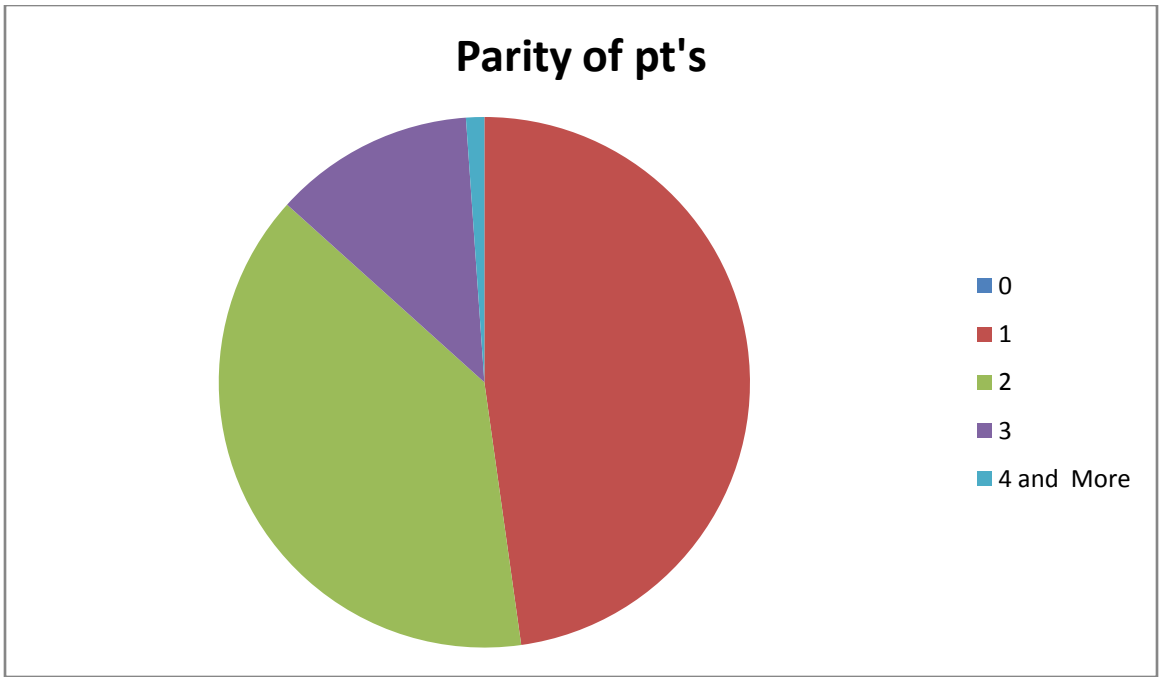
age gr.	no. of cases	percentage
16-20yrs	8	2.22
21-25yrs	144	40
26-30yrs	188	52.22
31-35yrs	12	3.33
36 and above	8	2.22



It is obivious from diagram maximum patients were of age group between 26-30 yrs and 21-25yrs.

Distribution of Patients according to parity:-

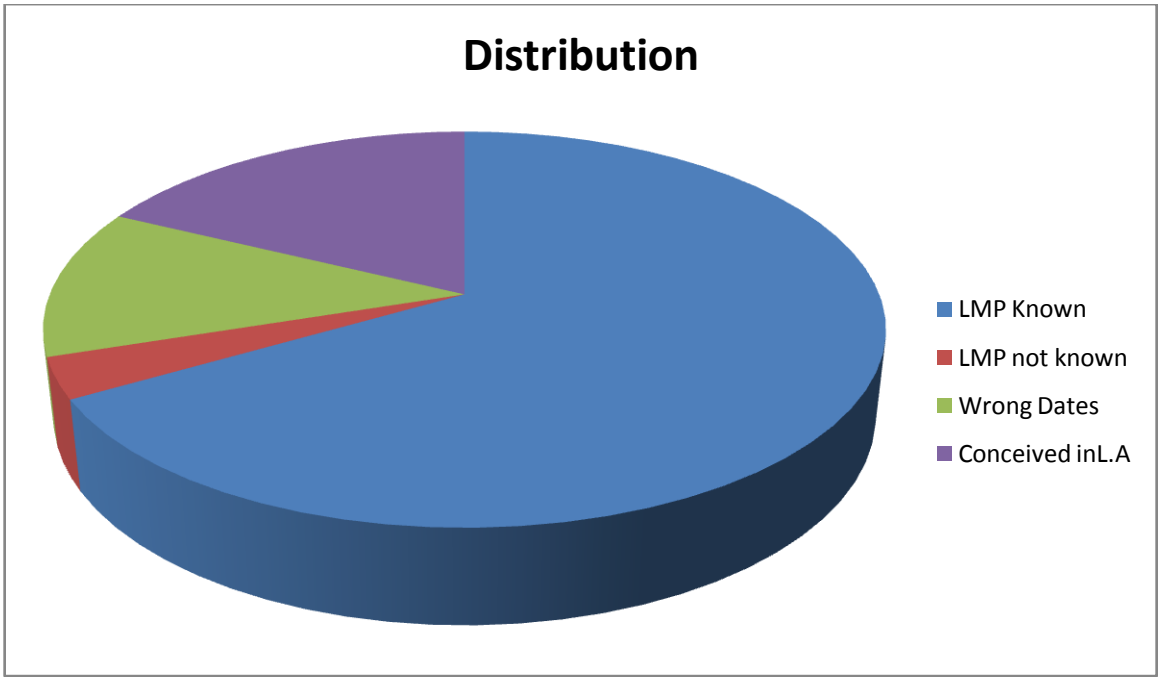
Parity	No of Cases	Percentage
0	0	0
1	172	47.77
2	140	38.88
3	44	12.22
4 and more	4	1.11



Maximum number of MTP were performed in primipara.

Distribution of Cases According to Last Menstrual Period:-

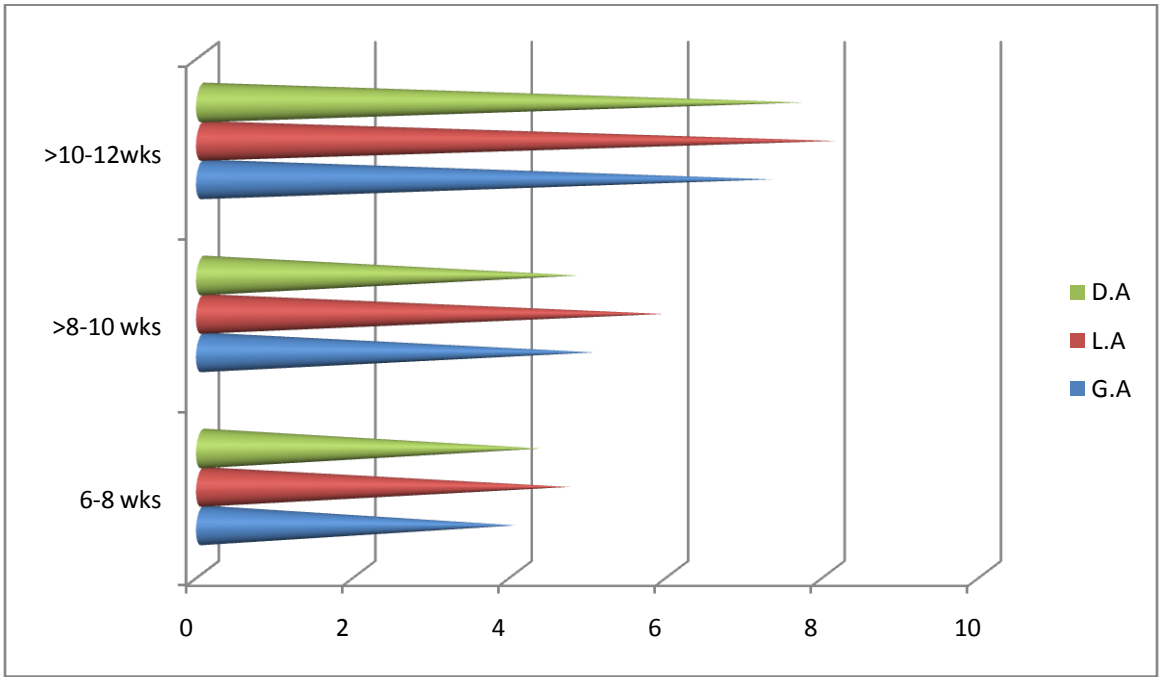
	No.of Pt.	Percentage
LMP Known	240	66.66
LMP not known	12	3.33
Wrong Dates	44	12.22
Conceived in LA	64	17.77



Maximum number of patients were aware of their LMP.

Time Taken in Performing Uncomplicated Medical Termination of Pregnancies:-

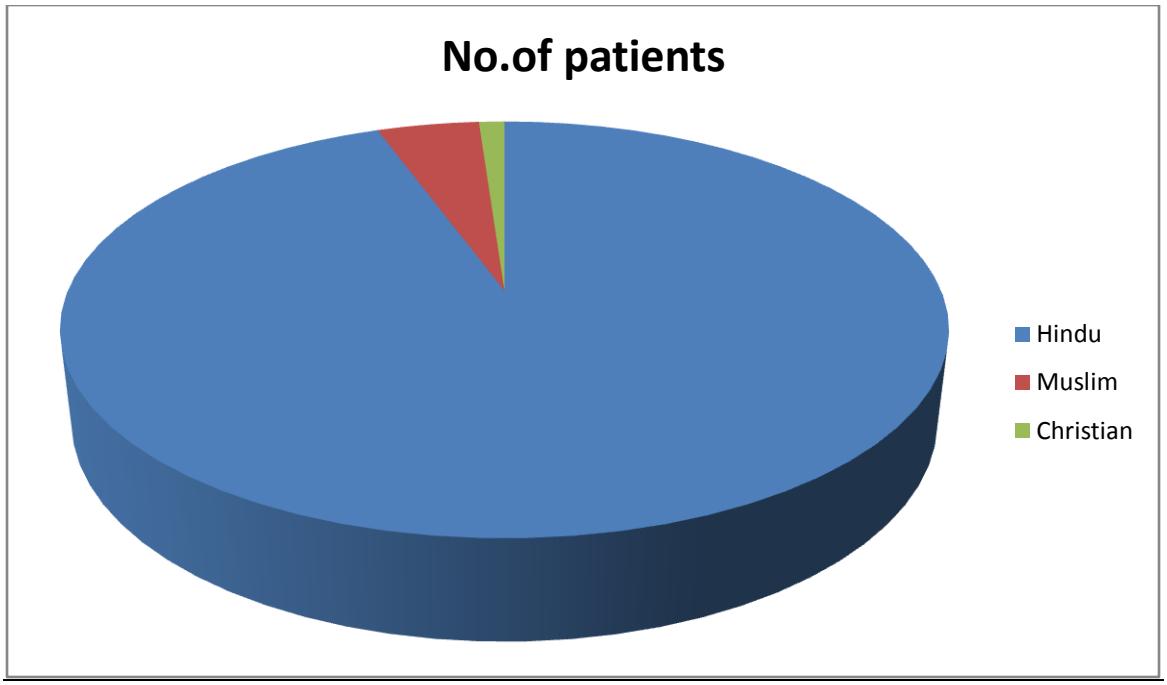
	GA	LA	DA
6-8wks	4min	4.69min	4.33min
>8- 10wks	5.01min	5.9min	4.80min
>10-12wks	7.29min	8.1min	7.68min



From above table we can see time taken in MTP increases with increasing gestation.

Distribution of Cases According to Religion:-

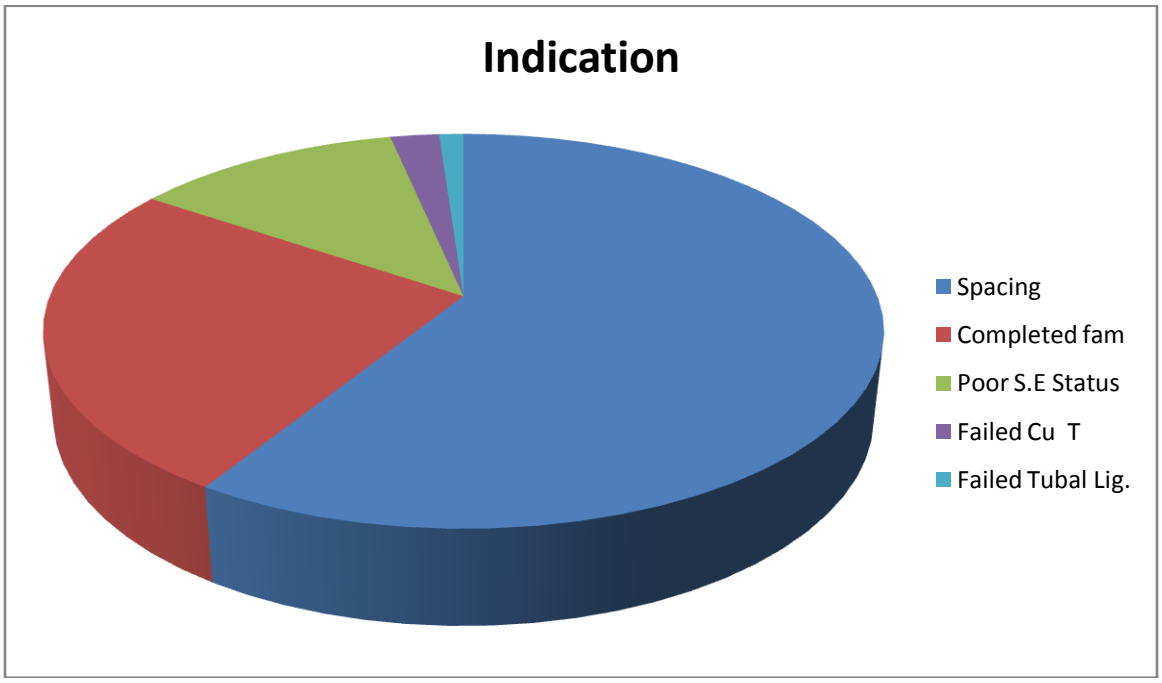
Religion	No of Pt's	Percentage
Hindu	340	94.44
Muslim	16	4.44
Christian	4	1.11



From above table we can see maximum number of MTP were performed in Hindu patients.

Indications of MTP-

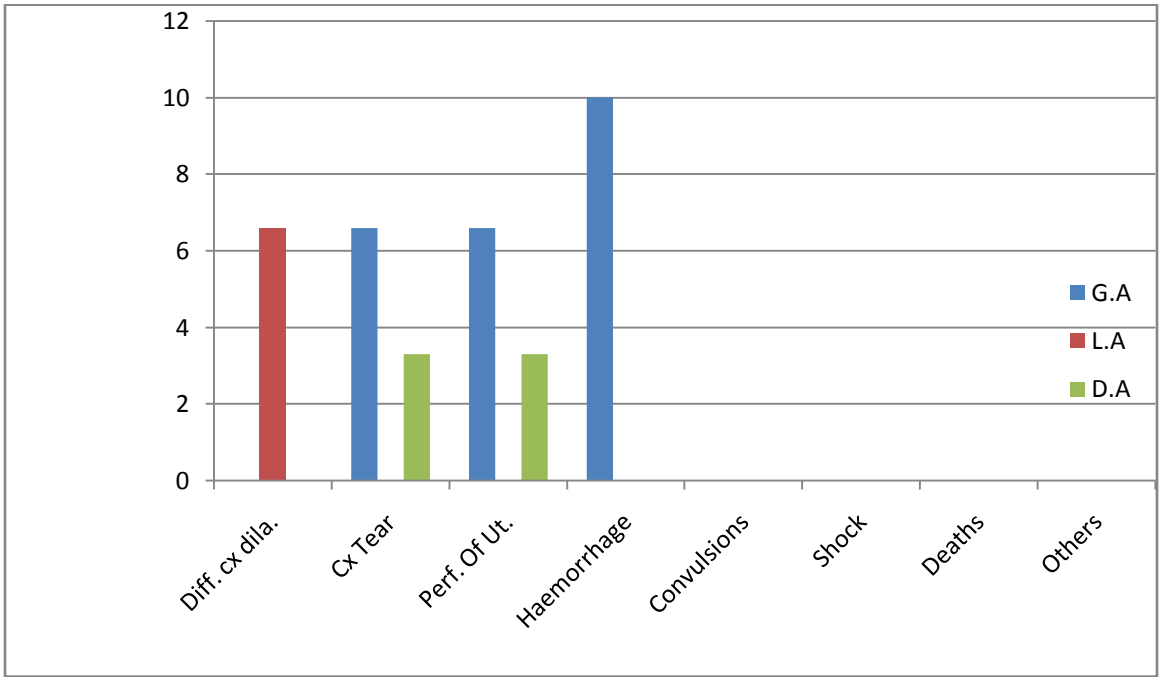
Indications	No. of Pt's	Percentage
Spacing	212	58.88
Com. family	92	25.55
Poor S.E.sta	44	12.22
Failed CuT	8	2.22
Failed TL	4	1.11



From above data we can see that maximum MTP were performed on patients for spacing of children.

Complications During Operation:-

Complications	G.A	Percentage	L.A	Percentage	D.A	Percentage
Diff.Cx Dil.	0	0	24	6.6	0	0
Cervical Tear	24	6.6	0	0	12	3.3
Perf.. Of ut.	24	6.6	0	0	12	3.3
Haemorr.	36	10	0	0	0	0
Convulsions	0	0	0	0	0	0
shock	0	0	0	0	0	0
Death	0	0	0	0	0	0
Others	0	0	0	0	0	0



From above we can see that maximum complications were under general anaesthesia.

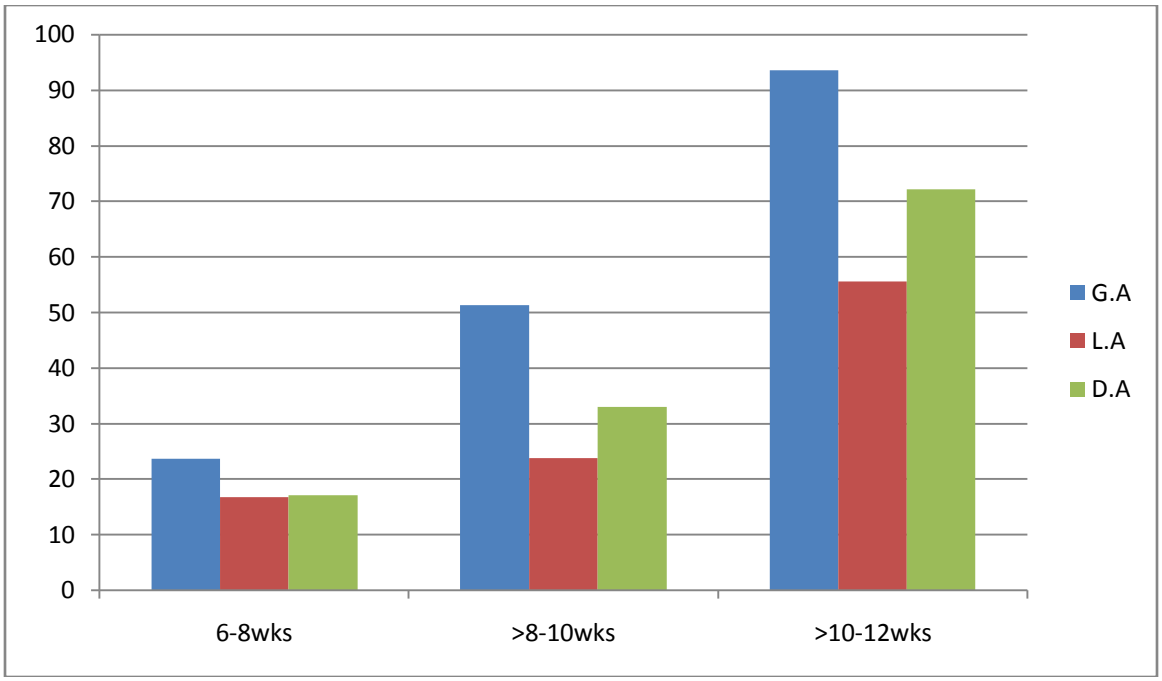
Immediate Post-Operative Complications-

Complications	G.A	Percentage	L.A	Percent.	D.A	Percentage
Haemorrhage.	12	3.3	0	0	0	0
Repeat D&C	12	3.3	0	0	0	0
Fever	0	0	0	0	12	3.3
Psychosis	0	0	0	0	24	6.6
Nausea/vom	36	10	0	0	12	3.3

Immediate post-operative complications were equal in General and Dissociated .In general group one patient had haemorrhage post-operatively .That patient required check curettage.

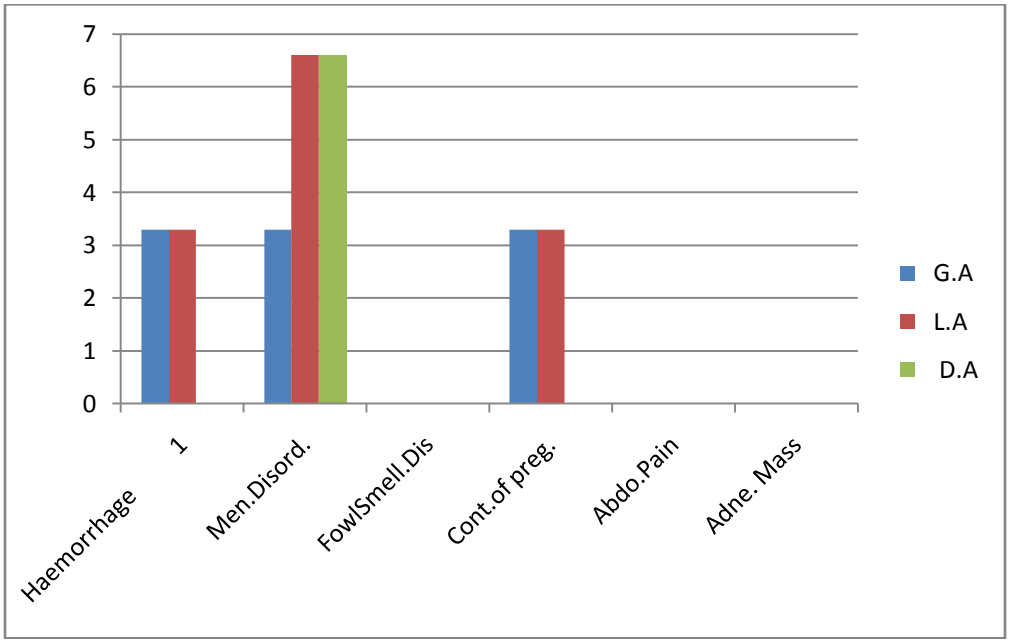
Blood Loss During MTP under Different Period of Gestation-

Pd. Of gest.	G.A	L.A	D.A
6-8WKS	23.7	16.76	17.17
>8-10WKS	51.3	23.8	33
>10-12WKS	93.52	55.53	72.19



Delayed Complications

Complicat ions	GA	Percentage	L.A	Percentage	D.A	Percentage
Haemorrhage	12	3.3	12	3.3	0	0
Men.Distur.	24	6.6	24	6.6	12	3.3
Pyrexia	0	0	0	0	0	0
Foul smelling dis	0	0	0	0	0	0
Cont. of preg.	12	3.3	12	3.3	0	0
Abd.Pain	0	0	0	0	0	0
Adnexal Mass	0	0	0	0	0	0



Results:-

Difficulty in cervical dilatation was present in 6.6% cases of local anaesthesia and no patient under general or dissociated anaesthesia(P<.05 which is significant).Cervical tear was present in 3.3% cases under General anaesthesia and 6.6% of patients under Dissociated anaesthesia and no patient under local anaesthesia(P value <.05 and <.01 ,significant).Perforation of uterus was present in 6.6% cases under general anaesthesia and 3.3% of cases under dissociated anaesthesia.(p value is significant in both the cases).Haemorrhage was present in 10% of patients with MTP under general anaesthesia as compared to no patients under local or dissociated anaesthesia(P value is highly significant). Among immediate post –op complications 3.3% of patients under general anaesthesia had Haemohage and 3.3% had D&C for excessive bleeding per vaginum.(P value is significant).Psychosis was present in 6.6% of patients under Dissociated Anaesthesia and no patients under Local or General Anaesthesia.Nausea/Vomiting was present in 10% of patients of General Anaesthesia and in 3.3% of patients under Dissociated Anaesthesia. (P value is significant in both the cases).Blood loss was significantly more in patients under general anaesthesia .

Discussion:-

Suction Evacuation is safe ,easy and reliable method of termination of pregnancy upto 12 weeks of gestation.It has gained world wide acceptance.Success rate of this procedure Is as high as 85%.During present study suction evacuation was done in 360 cases.Maximum number of patients in present study were between age group 21-30 yrs.

In present study MTP was done in two patients with failed contraception (2.22%) and in one patient with failed ligation.(1.11%).In study by Taiy ,gupta and Das contraception failure was in 2.50% failed tubectomy and vasectomy was in 0 .50% of cases. (1) Complications increases with increasing gestational age.(2)

Patient comfort and physician convenience are marginal indications for general anesthesia, considering the risks involved.Difficulty in cervical dilatation was present in (6.6% of patient) in which local anaesthesia was used for medical termination of pregnancy and none of patients under general or dissociated anaesthesia .(3,4) The degree of bleeding experienced under general anesthesia is greater,in present study excessive bleeding was present in 3.3% of patients(statistically significant) as compared to local and Dissociated anaesthesia where none of the patient had excessive bleeding. The risk of perforation is greater, and the risk of death due to aspiration of vomitus, among other factors, appears to be greater under general anaesthesia.(5,6,7)

In our study no case of uterine perforation .In a study conducted in 13 institutions perforation was .9 per 1000 cases.(2) The risk of death for abortion performed under general anesthesia is two to four times greater than under local anesthesia, and the risk of major complication is up to four times greater under general anesthesia .But risks under any type of anaesthesia are dependent on competence of doctor.These risks may be even greater for second trimester D & E . Local anesthesia offers many advantages over general anesthesia . First, the patient is alert, responsive, and communicative both during and immediately after the procedure. She is able to report important symptoms that may signal the occurrence or onset of serious complications in time to prevent them from becoming more serious or even fatal. (5,6,7)

Second , generally , the patient feels well within minutes after the procedure, and has a clear head. This rapid recovery is an important advantage for patients who have driven long distances for the abortion and must drive home shortly after the procedure . Third, the gag reflex is not diminished under local anesthesia whereas it is suppressed with general anesthesia. Abortion patients may have many characteristics, but one of them is occasional difficulty in following instructions not to eat or drink anything for a fixed number of hours before the abortion procedure. Fourth, patients who have had general anesthesia with previous abortions almost invariably have severe emotional problems dealing with the current abortion, in both the preoperative and operative phases. This phenomenon has become obvious and wholly predictable. For mental health reasons alone, general anesthesia may be contraindicated for abortion procedures. Fifth, the use of general anesthesia eliminates physician- patient interaction during the abortion and insulates the physician from the patient's emotional experience. This loss is a serious problem for physicians, and may make it extremely difficult for them to relate to the emotional problems encountered by abortion patients. It does nothing to enhance the physician's empathy for the patient's dilemma or the physician's understanding of the importance of this experience to the patient. A continued pregnancy, hemorrhage, and infection are the principal signs of failure to

empty the uterus, with the latter two being the most common. A continued pregnancy may result from the causes described in the previous section or from an unsuspected uterine anomaly. Treatment consists of repeating the procedure.

The signs and symptoms of retained tissue are cramping, heavy bleeding, And infection signaled by fever. Problems resulting from an Incomplete abortion usually will occur within 1 week, if not sooner, but unusually heavy bleeding several weeks after the abortion should be considered evidence of retained tissue until proved otherwise. The most reliable indication of retained tissue is bleeding , particularly when prophylactic antibiotics have been given to the patient. As a rule of thumb, bleeding that is significantly heavier than the normal menstrual flow indicates reaspiration. A history of sudden hemorrhage that then ceased is valuable. The intervening use of tampons may prevent the examiner from seeing the evidence of this bleeding, but the history alone suggests further study. A high fever (102°F [39°C] or more) within 72 hours of abortion should be considered evidence of retained tissue with sepsis until proved otherwise. The patient should be treated by prompt reaspiration followed by intravenous administration of antibiotics in combinations designed for anaerobic and microaerophilic bacteria.

There are various approaches to the management of uterine perforation, with treatment depending on the severity of perforation. When perforation of the uterine fundus is recognized before a first-trimester abortion procedure has begun, it may be managed by observation, treatment with oral antibiotics, and delay of the abortion for 2 or 3 weeks Postabortal hematometra can be prevented in most cases by routine administration of methylergometrine maleate 0.2 mg three times a day for 3 days. Postabortion psychosis without a history of preabortion psychiatric illness has not been reported.Postabortion depression that is severe enough to require psychiatric treatment is rare, particularly if the abortion is conducted in a supportive atmosphere with preoperative councelling. Patients who experience this condition should be referred to a psychiatrist for extended treatment after evaluation by the abortion service personnel

Among delayed complications menstrual disturbances was recorded in 3.3% cases of General and Local anaesthesia whereas continuation of pregnancy was in 3.3% of cases.In a large study by Danish delayed complications were in 34 per 1000 cases within two weeks following procedure, most being bleeding, re-evacuation or infection, although this study excluded women without a subsequent pregnancy. In present study none of the patient has problem in future pregnancy - Spontaneous abortion, preterm delivery . In a hospital records in Seattle , Washington , concluded that a history of induced abortion was not related to low birth weight , premature delivery, stillbirth , neonatal death , spontaneous abortion, or congenital malformation in subsequent pregnancies.[8]

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