Summary
SUMMARY

The present study “Instrumental Vaginal Delivery – Vacuum Vs Forceps (A Comparative Study)” was conducted in the Department of Obstetrics and Gynaecology, Pt. J.N.M. Medical College and Dr. B.R.A.M. Hospital Raipur, from Aug 2007 to Feb 2009.

- The incidence of assisted vaginal deliveries was 1.96% which was similar to the studies conducted by others.

- We have selected 120 cases (60 ventouse, 60 forceps) for study and recorded 14.1% failures among assisted deliveries. Majority of failures were due to cephalo-pelvic disproportion (47%).

- Maximum cases (56.6%) were between age 21-25 years. There was no significant difference between ventouse and forceps in this age group (p>0.05).

- In the present study, maximum number of partureints were of low parity. (64.1%)

- Mean birth weight in our study was 2.80±0.39 kgms. The two groups did not vary in terms of gestational age and Apgar score (p>0.05).

- Overall, commonest indications were to cut short 2nd stage of labour (51.6%) followed by prolonged labour. Forceps applied more in cases of fetal distress which was statistically significant (p=0.001).

- Ventouse and forceps were applied at +2 station in 75% cases and 83.3% of cases respectively.
• 96% of cases were successful if number of tractions kept upto 5.
• Even in <10 cm of cervical dilatation, ventouse delivery were possible in 6.66% of parturients.
• In the present study, more than 4 pop offs resulted in failure of instrument application in 2 cases.
• In 5.8% cases, forceps has to be applied due to failed ventouse and in 8.3% cases, caesarean section undertaken as instrument delivery failed.
• In terms of maternal morbidity, episiotomy extension as well as 1st & 2nd degree perineal tear were statistically significant in the forceps group (p=0.00015 & p=0.02 respectively).
• Maternal injuries were few in the VE group. There were 8 (13.3%) cases with episiotomy extension, 3 (5%) with perineal tears and none of the parturients had cervical tear.
• Major maternal morbidity viz. 3rd & 4th degree perineal tear, postpartum haemorrhage and need of blood transfusion were observed only in forceps group (8 cases).
• There was no maternal death associated with either procedure.
• With regard to neonatal morbidity, no statistically significant difference noted among the two study groups except for cephalhaematoma which was commoner in the ventouse group (p=0.0001) and instrumental marks & bruising were significantly more in the forceps group (p=0.0001).
• There were no perinatal mortality in the two study groups.
Conclusion
CONCLUSION

All of us have seen many women with normal pregnancy going into normal labour and suddenly due to certain unfavourable circumstances converting in prolonged or obstructed labour.

In olden days, often mother was salvaged and the fetus was either dead or it was accepted that it cannot be survived. Instrumental delivery was often used in the women with prolonged or obstructed labour. As time evolved, the technology developed and caesarean section became safer. Clinicians gradually made a shift towards caesarean. In the present time, caesarean section is considered a safe practice if done in early labour. As a result, the caesarean rates have gone to as much as 50% in certain hospitals. Instrumental delivery is becoming a forgotten art by many clinicians today.

Our study analysed maternal and fetal outcomes in assisted vaginal deliveries and suggests that ventouse application is associated with significantly less maternal trauma than with forceps. There seems to be no difference in neonatal outcome. The major factor which determines the safety of the instrument is the operator rather than the instrument. Either method can be used in the hands of a skilled operator with an appropriate level of expertise and good judgement. Encouraging operative vaginal deliveries may help to reduce the unwarranted & raised caesarean section rates.

That is why, the art of Instrumental delivery using either vacuum or forceps should be taught to the residents. Also, those who have learnt
its usage, but are not using it any longer, should undergo a training programme/workshops to update themselves so as to reach the WHO recommendation of a 10-15% caesarean section rate set to achieve optimal maternal and perinatal safety.

Current evidence suggests that when assisted vaginal delivery is required, the ventouse should be chosen first (if there is no fetal distress) principally because it is significantly less likely to injure the mother. In forceps delivery, outlet forceps are the safest and mid-cavity applications have been abandoned.

In a nutshell, vacuum and forceps remain appropriate tools in the armamentarium of the modern obstetrician. It should be regularly used by all the obstetricians to maintain the skill and experience for optimizing the caesarean rates as well as feto-maternal outcome.