CONCLUSIONS
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Present study of 126 patients were done in M.L.B. Medical College & Hospital, Jhansi, to see the effect of type of perioperative fluid infusion in surgical patient post operatively on the following parameters.
- Serum sodium
- Serum potassium
- Serum osmolality
- Urinary volume
- Urinary sodium excretion

The patients were divided into three groups. Out of 126 patients,
- 45 received 3 lit. of 5% dextrose.
- 45 received 2 lit. of 5% dextrose + 1 lit. of isotonic saline.
- 33 received 1 lit. of 5% dextrose + 2 lit. of isotonic saline.

The conclusion derived were as follows:
1. Serum sodium - The nature of fluid has a profound effect on serum sodium levels, salt free solution i.e. Dextrose 5% causes hyponatremia in post operative period while with balanced salt solution serum sodium levels remained within the normal range in post operative periods.
2. **Serum potassium** - The nature of fluid i.e. 5% dextrose or isotonic saline has no effect on serum potassium level. We found a rise of serum potassium in all three groups.

3. **Serum osmolality** - Patients receiving 3 lit. 5% dextrose and those receiving 2 lit. 5% dextrose + 1 lit. isotonic saline showed a fall in serum osmolality while there was no change or insignificant rise in serum osmolality in patient receiving 1 lit. 5% dextrose + 2 lit. isotonic saline.

4. **Urine volume** - Nature of fluid has an effect on the urine volume in the early post operative period. There was an increased urine volume in patients receiving 5% dextrose only, but urine volume became equal in all groups, the second & third post operative days.

5. **Urinary sodium** - The salt free fluid (i.e. 5% dextrose) causes fall in urinary sodium excretion while rise is seen in patient receiving 1 lit. 5% dextrose + 2 lit. isotonic saline.

Thus, my study shows that infusion of salt free solution (i.e. 5% dextrose) in post operative period leads to hyponatremia with fall in serum osmolality and urinary sodium excretion. With infusion of balanced salt solution, there is no hyponatremia & no fall in serum osmolality, which helps in recovery of patient. Various causes are attributed to hyponatremia and fall in serum osmolality. But exact cause has not been established till now. The presence of 3rd factor & its role require
further work.