SUMMARY AND CONCLUSIONS
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The present study was carried out on 28 patients of acute neurological episodes including 16 cases of cerebral infarction, 12 each of intracranial haemorrhage and tuberculosis meningitis, 10 of pyogenic meningitis and 8 with miscellaneous conditions. Twenty age and sex matched individuals served as controls. Serial serum and cerebrospinal fluid (C.S.F.) glutamic oxaloacetic transaminase (C.O.T.) and lactic dehydrogenase (L.D.H.) estimations were done in the control and study groups. Following conclusions could be drawn from the study:

1. Mean cerebrospinal fluid C.O.T. and L.D.H. levels in controls were $5.5 \pm 2.5$ I.U./L and $16.3 \pm 4.9$ I.U./L respectively.

2. Mean serum C.O.T. and L.D.H. levels in controls were $9.85 \pm 4.6$ I.U./L and $94.23 \pm 30.6$ I.U./L respectively.

3. Statistically significant elevations of serum C.O.T. and cerebrospinal fluid C.O.T. and L.D.H. were found in all cases with infarction and haemorrhage (serum C.O.T.: $P < 0.05$ and $< 0.001$ in infarction and haemorrhage respectively, GaAsF, GaO,Ta, LoDahl: $P < 0.001$ in both groups).

4. Cerebrospinal fluid C.O.T. and L.D.H. showed a more marked rise in haemorrhage than in infarction ($< 0.001$), the values of both enzymes being maximum on the first estimation.
5. Serum G.O.T. showed maximum activity between fourth to seventh day in infarction and between first to third day in haemorrhage.

6. None of the enzyme levels returned to normal till the last follow up.

7. Significant differences between mean peak levels of G.O.T. and L.D.H. in C.S.F. were found between improved and expired cases in infarction as well as haemorrhage \( (P \leq 0.001 \text{ and } \leq 0.05 \text{ for G.O.T. and L.D.H. levels respectively in both groups}) \). S.G.O.T. levels showed significant difference between improved and expired cases only in cases with haemorrhage \( (P \leq 0.001) \).

8. No definite diagnostic levels (cut off levels) of C.S.F. G.O.T./L.D.H. could be obtained in dissected embolism from thrombosis \( (P \geq 0.1) \). Serum G.O.T. values, however, showed a significant difference \( (P \leq 0.05) \) in these groups. C.S.F. and serum G.O.T. showed significant difference \( (P \leq 0.001) \) between subarachnoid and cerebral haemorrhage unlike cerebrospinal fluid L.D.H. \( (P \geq 0.01) \).

9. Cerebrospinal fluid G.O.T. and L.D.H. were significantly \( (P \leq 0.001) \) raised in both tuberculous and pyogenic meningitis, the values in the latter being markedly higher \( (P \leq 0.001) \). Serum levels of both enzymes were normal.

10. Peak levels of both enzymes were obtained on first estimation.
11. Enzyme levels continued to remain significantly higher ($P \leq 0.001$) than normal till the last follow-up.

12. Significant differences in cerebrospinal fluid C.O.T. levels between improved and expired cases of both types of meningitides (Tuberculous and pyogenic) were found ($P \leq 0.05$ and $\leq 0.001$ respectively), while cerebrospinal fluid (L.D.H) showed significant difference only in pyogenic meningitis ($P \leq 0.001$).

13. No definite diagnostic levels (cut off levels) could be obtained between tuberculous and pyogenic meningitis though C.O.T. and L.D.H. values in C.S.F. were significantly higher in pyogenic meningitis as compared to tuberculous meningitis ($P \leq 0.001$).

14. There was no significant correlation between C.S.F. enzyme values and routine C.S.F. parameters, like cells and proteins ($P \geq 0.05$).

15. Significant C.S.F. C.O.T. elevations were found in both cases of cortical vein thrombosis; other enzyme levels in serum being normal. No enzyme change could be detected in other cases of the miscellaneous group.