DISCUSSION
Epidemic occurrence of encephalitis is mainly confined to the paediatric age group (Bajpai, 1960; Gaur, 1956). The sporadic occurrences are not so biased to age.

In the present study, a striking case incidence of 16.67% in paediatric age group was observed whereas 63.33% cases occurred above 12 years of age. The peak age group in this study has been between 0-5 years (30.0%) and a next peak has been observed between 16-20 years of age (24.7%). Gaur (1956) and Bajpai (1960) found the peak between the same age groups but with a relatively higher figures of 43%, 33% respectively as they studied cases during epidemic. Gaur (1956) reported 2 cases out of 106 above 40 years but in the present study 45 cases were observed in this age group out of 60 cases showing that probably sporadic occurrence of illness is more frequent in higher ages than epidemics.

Viral encephalitis showed no sparing tendency to either of the sexes. The present study reveals the male and female ratio as 1.8 : 1. An almost similar findings were recorded by Gaur (1956) - 1.7:1, Bajpai (1960) - 1.6:1. Whereas Seal (1956) and Webb (1959) obtained little higher figures i.e. 2.3:1 and 2.2:1 respectively. This reveals an equal sex incidence in sporadic and epidemic illness.

It is well recognised that the onset of viral affection is acute but rarely a gradual onset is also
possible (Bennette, 1966) and observed by Gaur (1956) and Riggs (1961). In our study an acute onset in 97.2% cases was observed whereas in 2.8% cases were presented with incidious onset.

Usually the course of viral infections of CNS are stormy but of short duration (Dickerson, 1952; Gaur, 1956 and Bajpai, 1960). In the present study except in two cases the disappearance of clinical findings was observed and a duration of illness varied from 4-11 days. Prolonged pyrexia of 2 weeks was also observed in two cases. Chatterji (1948) also reported a prolonged pyrexia of 4 weeks in 8 cases.

Pyrexia was observed in 98.33% cases in the present study whereas Gaur (1956), Bajpai (1960) and Mathur (1959) observed pyrexia in 93.4%, 98.0% and 100% cases respectively. Observation of this study had been in near resemblance with Mathur (1959) and Bajpai (1960).

The range of temperature recorded varied from 98-104°F. Rarely the temperature may to upto 106°F (Gaur, 1956).

Generalised and focal convulsions were observed in 73.33% cases whereas Gaur (1956), Bajpai (1960) and Singh (1965) observed generalised and focal convolution in 65% cases, 51.8% and 68.3% cases respectively. Our findings are similar with these workers. Low figures of convulsions were obtained by Gaur in epidemics.
Headache is a significant symptom of raised intracranial tension. In the present study, headache was noted in 86.71% cases whereas lower incidence of 60.2% and 72% were reported by Riggs (1965) and Singh (1965) respectively.

Impairment of consciousness (coma and semicoma) are quite common observation (Kundu, 1966; Bajpai, 1960 and Singh, 1965). Varied levels of consciousness was observed in 100% cases of present study whereas Kundu (1966) and Bajpai (1960) observed in 97% and 96% cases respectively. Our findings are closely resembling with Kundu (1966) and Bajpai (1960).

Signs of meningeal irritation was observed in 73.3% cases in the present study whereas Periera (1959), Bajpai (1960), and Gaur (1956) observed signs of meningeal irritation in 75%, 68% and 52.2% respectively. Our findings are similar with those workers. Low figures of signs of meningeal irritation were obtained by Gaur in epidemics.

Cranial nerve involvement although not common as in bacterial affection but significant involvement is mentioned (Webb, 1959; Mathur, 1959 and Singh, 1965). Dilated pupils may be due to raised intracranial tension besides nerve lesion.

In the present study dilated and sluggishly reacting pupils was observed in 48.33% cases and similar findings were described by Singh (1965) in 55.2% and by
Mathur (1959) in 38% cases. Facial palsy was found in
16.7% cases in the present study whereas Riggs (1961) and
Periera (1961) reported it in 9% and 25% cases respec-
tively.

An altered planter response is frequent in
encephalitis as shown by Singh (1965) in 57.9%, Bajpai
(1960) in 49.8% cases. It was recorded in 66.67% cases
in the present study.

Either localised or generalized exaggerated
deep jerks were commonly observed whereas sluggish
response was less frequently noted. Exaggerated deep
jerks was noted in 70% cases whereas 69%, 62% and 58%
were observed by Mathur (1959), Bajpai (1960) and Singh
(1965) respectively. A sluggish response (Kundu, 1960 -
14%) was observed in 8.33% cases in the present study.

Bronchitis was a common accompaniment of
encephalitis. An incidence of 16.4% and 20% was reported
by Mathur (1959) and Singh (1965) respectively. It was
recorded in 12% cases in the present study.

LABORATORY INVESTIGATIONS

It is emphasized that it is not uncommon in
C.N.S. affection of viral origin to have leucocytosis.
Larawer (1961) found W.B.C. count of 4000-15000 cells/
cumm in 46% cases. In the present study a WBC count range
between 4000-16600 cells/cumm. with leucocytosis (Count
above 11,000 cells/cumm.) in 23% cases. So it may be
emphasised that high count should not go in favour of bacterial origin.

C.S.F. Examination

It is well recognised that routine C.S.F. examination shows cell count of 50-500 lymphocytes or mononuclear cells/mm\(^3\) with normal sugar (40-80 mg%) and chloride (720-750 mg%) and slight rise in protein (40-120 mg%) levels besides sterile C.S.F. on culture (Seal, 1956; Dickerson, 1952; Mishra, 1981, Rubach, 1962) and Nearver, 1962 etc.).

The following table shows some significant observations obtained by the different workers in C.S.F.

<table>
<thead>
<tr>
<th>Workers</th>
<th>Cells/ mm(^3)</th>
<th>Protein (mg%)</th>
<th>Sugar (mg%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal (1956)</td>
<td>50-150</td>
<td>40-100</td>
<td>30-60</td>
</tr>
<tr>
<td>Dickerson (1952)</td>
<td>50-400</td>
<td>35-90</td>
<td>40-75</td>
</tr>
<tr>
<td>Mishra (1981)</td>
<td>33-231</td>
<td>40-140</td>
<td>40-100</td>
</tr>
<tr>
<td>Nearver (1962)</td>
<td>Upto 500</td>
<td>22-96</td>
<td>40-80</td>
</tr>
<tr>
<td>Present study(1992)</td>
<td>50-500</td>
<td>40-120</td>
<td>40-80</td>
</tr>
</tbody>
</table>

This is obvious from the above table that marked leucocytosis should not dilute viral etiology. Low chloride levels were also found in 18.3% cases of present study as was seen by Gaur (1962) and Singh (1965).

In the acute stage of viral encephalitis the EEG abnormalities consist of generalised slowing in the range of delta/theta activity. Generalised slowing with
predominantly focal abnormality, paroxysmal.

<table>
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<tbody>
<tr>
<td>Generalised slowing of delta/theta activity</td>
<td>37.5%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Generalised slowing with predominantly focal abnormality</td>
<td>25.0%</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

**SEQUELAE AND PROGNOSIS**

In the present study number of sequelae of encephalitis were observed. They constituted impaired consciousness and memory, frontal headache, fine tremors of limbs and inco-ordination. Some of these and other sequelae were observed by other workers also (Bajpai, 1960; Riggs, 1961). It was observed in 30% cases in the present study. In the present study mortality rate was 36.67% cases. A mortality rate of 82% and 28% was also observed by Kundu (1956) and Mathur (1959) respectively.