Guillain Barre Syndrome (GBS) is an acute, immune mediated polyradiculoneuropathy and an important cause of acute flaccid paralysis (AFP) worldwide. Acute inflammatory demyelinating polyneuropathy (AIDP) is the classic demyelinating form of GBS. In the 1990s, a pure motor axonal form of GBS, termed acute motor axonal neuropathy (AMAN), was recognized in northern China, and was later found in other countries as well. However, the frequency of AMAN varies by country; only 7% of GBS patients exhibit AMAN in England, 5–10% in North America, 40% in Japan, and 65% in northern China. Nerve conduction studies (NCS) have been used to confirm the diagnosis of GBS and to identify the subtype of GBS according to features of demyelination.

Autonomic involvement is a common feature of GBS, but rarely does GBS manifest with pure autonomic dysfunction. A retrospective descriptive study was done at our center which consisted of 36 patients admitted with the diagnosis of Guillain Barre syndrome.

Materials and Methods

A total of 36 patients who were admitted at Tribhuvan University Teaching Hospital between September 2011 and September 2012 with the diagnosis of GBS were studied. The diagnosis was made based on the standard clinical criteria for GBS. Epidemiological data was collected including duration of symptoms before admission and duration of hospital stay. The pattern of involvement of limbs was recorded. Involvement of cranial nerves were looked for in all patients.

Nerve conduction study was performed using conventional procedures. Patients were classified as AMAN or AIDP on the basis of the electrodiagnostic criteria reported by Hadden and colleagues.

Results

The mean duration of symptoms on admission was 9.17 days (range 1-21 days). The mean duration of...
hospital stay was 11.5 days (range 2-45 days).

The median age of the patients was 35 years (range 12-80 years). Out of 36 patients, 20 (56%) were male. Sensory symptoms were present in 23 (64%) patients whereas only two patients had sensory findings on examination.

Three (8%) patients had extraocular muscle involvement. Only four (11%) patients had bifacial weakness. Oropharyngeal weakness was also present in only 4 (11%) patients (Figure 1).

**Electrophysiological Subtypes**

Based on electrophysiological criteria, nine (27%) of 33 patients were classified as AIDP and 24 (73%) as AMAN. Electrophysiological data was not available in three patients (Figure 2).

Dysautonomia was seen in seven (19%) of patients. Reflexes were normal in three (8%) patients.

Seventeen (47%) patients had onset of weakness in the lower limbs. Fourteen (39%) patients had simultaneous weakness in both the upper and lower limbs and five (14%) patients had onset of weakness in the upper limbs (Figure 3).

Only one patient needed ventilatory support and there was no mortality.

**Discussion**

GBS is one of the acute flaccid paralysis syndromes in humans. The most frequent subtype of GBS in North America and Europe is AIDP, which accounts for 90% of cases, while in Asia, South and Central America, the axonal form of GBS constitutes 30% to 47% of cases.

In 33 patients studied in our study, electrophysiology data was available and 24 (73%) had features of AMAN whereas only nine (27%) patients had features of AIDP.

In most patients, the symptoms ascend from the lower to upper limbs; however, in about one-third of cases, all limbs may be involved simultaneously and in about 10% the upper limbs may be affected first.

Similarly, in our 36 cases, 17 (47%) patients had onset of weakness in the lower limbs, 14 (39%) had simultaneous weakness in upper and lower and 5 (14%) had onset of weakness in the upper limbs.

Dysautonomia is well documented in AIDP occurring in 15% of patients; and includes cardiac arrhythmia, hypertension or hypotension, ileus and urinary retention. Seven (19%) patients in our series had dysautonomia.

Respiratory muscle weakness may be severe enough to warrant artificial ventilation in about 25% of patients and portends a poor prognosis. Only one patient had to be kept in the ventilator in our study.

Weakness of facial muscles is common, occurring in 50% of cases, and is frequently bilateral. In our study, only four (11%) patients had bifacial weakness.

Other cranial nerves may be involved, particularly those innervating the tongue and muscles of deglutition. On occasion (less than 5%), the neuropathy may begin in the nerves to the extraocular muscles or other cranial nerves. In our study, four (11%) patients had oropharyngeal weakness and three (8%) patients had extraocular muscle involvement.
Conclusions

It can be concluded that the axonal variety of GBS is common in our country which was seen in 73% of cases. Bifacial weakness was not so common and was seen in only 11% of patients. Rest of the clinical profile of patients in our country is similar to that described in the Western literature.

References