

# Guillain-Barré Syndrome

Some of the neurological diseases are common causes of disability and death world wide. Among them, stroke and degenerative diseases are of importance. But the acute conditions like infection and vascular phenomenon usually carries good prognosis whereas chronic illnesses like motor neuron disease and Parkinson's disease give rise to more disability. Guillain-Barré syndrome (GBS) is one of the commonest causes of acute symmetrical flaccid paralysis of limbs in much of the world.<sup>1,2</sup> The basic pathogenesis of this disease is the involvement of nerve roots by antigen and antibody mediated reaction. The disease is often preceded by an antecedent, either upper respiratory tract infection (URTI) or gastroenteritis by virus or bacteria. The antigens of these organisms have molecular mimicry with that of gangliosides of nerve roots. The antibody produced against the organism's antigen interacts with the gangliosides of nerve root and results either demyelination or axonopathy or both<sup>3,4,5</sup>.

The diagnosis of GBS is usually straightforward on the basis of its triad of presentation like-acute symmetrical ascending paralysis of limbs, areflexia and albumino-cytological dissociation in CSF<sup>6,7,8,9</sup>. The electro-physiological diagnosis is useful in the early stage and in typing of GBS.

Under the description of GBS there are varieties of presentations like acute inflammatory demyelinating polyradiculopathy (AIDP), acute motor axonal neuropathy (AMAN) and acute motor sensory axonal neuropathy (AMSAN) and a mixed variety AIDP+AMSAN. The differentiation into those types is done on the basis of their presentations and prognosis. AIDP carries good prognosis and AMAN carries poor prognosis. The others are in between the two<sup>10,11</sup>. The commonest type of GBS in the western world is AIDP following URTI. But from the northern China and India the commonest variety reported is AMAN following gastroenteritis by *Campylobacter jejuni*<sup>12,13</sup>. In Bangladesh, it is anticipated that the predominant type of GBS may be

AMAN, but there had been two case studies which showed conflicting results, AIDP in one and AMAN in the other. In Bangladesh, GBS is the commonest cause of polyradiculopathy in the hospital. No age or sex is immune, but the commonest age of involvement is young adults and male sex. It is observed that there is a little higher admission of GBS in summer season.<sup>14</sup>

There is no specific treatment of GBS. But the use of intravenous immunoglobulin<sup>19</sup> in the first week in selected cases may slow the progress of the disease and thus enhance recovery, shorten the hospital stay and minimize the need of a ventilator. The use of Inj. Methyl Prednisolone alone is not recommended and the combination of IVIg and Inj. Methyl Prednisolone also has no benefit. Plasmapheresis is another option but its benefit is like IVIg in addition to many limitations of its use. Physiotherapy is still the mainstay of treatment in all cases<sup>15,16</sup>. The prognosis of GBS is good, 80% recover, 10% remain disabled and 10% die<sup>17</sup>.

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