

# Lightning medicine in rural practice

With reference to the article by Bhargava AN, Kasundra GM, Khichar S and Bhushan BSK entitled 'Lightning strike induced brachial plexopathy'.<sup>[1]</sup>

I think the *Journal of Neurosciences in Rural Practice* is a perfect vehicle to discuss the pathology of trauma of lightning (keraunopathology) as most lightning strike incidents tend to occur in *rural areas*.<sup>[2]</sup> Furthermore, most of the chief injuries tend to be *neurological* in nature.<sup>[3]</sup>

Lightning medicine (keraunomedicine) is a relatively new and emerging field. Lightning is a multi-physics complex phenomenon having a multiplicity of components such as a thermodynamic component, an electrical component, a magnetic component and even a barotrauma component.<sup>[4]</sup> Hence the predicted pathology of trauma from a lightning strike incident may be very peculiar indeed!

Unusual skin lesions such as Lichtenburg figures, ruptured eardrums, fractured bones, shrapnel injuries on the skin and even pneumomediastinum have been described in the literature.<sup>[5-9]</sup>

Key points to remember in rural practice when investigating lightning incidents is to try and get as much data as possible. Visit the scene if possible. Consult experts from other disciplines (such as electrical engineers) and try to obtain as much collateral information as possible. Even try and confirm the precise time and pinpoint location of the 'culprit' lightning strike with your local weather service (yes, this is possible!)

Once all the data has been collated, a clear picture of the lightning incident will emerge. The mechanism of lightning injury may then be ascertained. Six injury mechanisms

have been described to date.<sup>[10]</sup> Understanding the mechanism of injury of lightning strike is essential to understanding the pathology of trauma sustained by the victim.

In conclusion, aforementioned will not only make your day-to-day clinical practice more enriching, but it will add value to your patients' understanding of their injuries and possibly even their treatment regimes.

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