

Survives a lightning strike

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Lightning strikes are not rare, but for a man to survive the ordeal of having millions of volts passed through his body during such a lightning strike is extremely rare. One such case is the one which I will describe hereunder in some detail in view of its extreme rarity and interest. In this connection, the paper (photograph of a close Lightning Flash) published by Richard Orville¹, is also very interesting as it shows that a tree struck by lightning, likewise sustained, apparently, no physical damage.

One of the earliest illustrations showing the 'normal' effect of a thunderbolt on man and a tree was illustrated by Gregorius Reisch² in his *Margarita Philosophica*. The illustration shows a dead man lying beneath a tree whose trunk has been split open by the lightning strike (Figure 1)³. In those early days, however, the cause of these two mishaps was not attributed to the thunderbolt, but respectively to the impact of a fossil shark's tooth (*glossopetra*) against the man's head and of a fossil sea urchin (*ceraunia*) against the tree trunk. It was then generally held that such objects fell from the heavens during storms, and as they were found close to the scene of the accident, they were blamed for the tragedy.

On 8th October 1963, I was called urgently to visit a man who had just been 'struck by lightning'. I asked the panting man who had called for me to jump into my car and show me the way to the patient.



Fig. 1 - A dead man and a split-open tree beneath a storm cloud - effects of a lightning strike in antiquity wrongly attributed to two objects (*ceraunia*, a fossil sea urchin and *glossopetra*, a fossil shark's tooth) fallen from heaven during a storm.

I was led to a small house in an alley in Main Street, Hassajjied, on the outskirts of the village of Birkirkara. Here, on the second floor, surrounded by members of his family and a small number of astonished friends and neighbours, I found a lean 64 year old formerly healthy farmer lying helplessly on his bed. To the amazement of all around, his rigid right leg was spontaneously and rhythmically darting up and down in the air.

I arrived on the scene, 20-30 minutes after the accident and found my patient lying fully dressed on his bed, somewhat shaken by his extraordinary experience, but fully conscious, talkative and co-operative. He had no pain or complaints, but was greatly concerned that he had no control over the rhythmic movements of his right leg.

When I requested the removal of the patient's shirt in order to carry out a proper examination of his chest and back, the cause of all the trouble became immediately evident. Just lateral to his left mid-scapular line at the

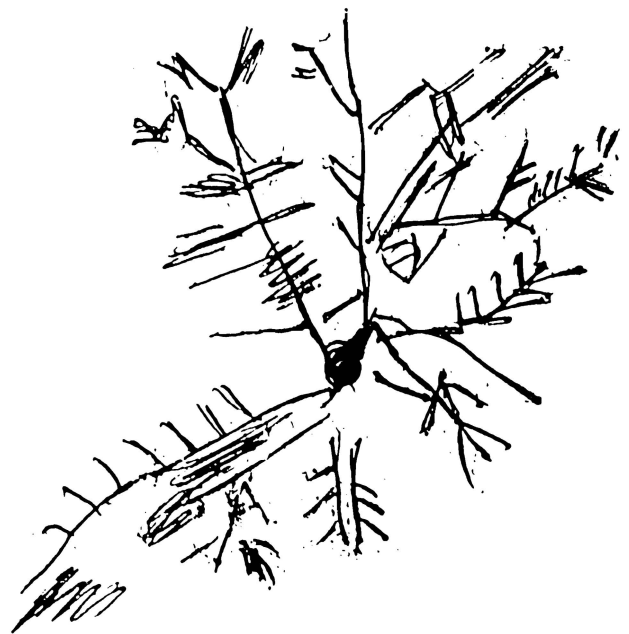


Fig. 2 - Fern-like burn markings on left back of stricken man. Large ovoid central mark is located at level of T.8, just lateral to left mid-scapular line. Sketch prepared by the author on site, about 25 minutes after the accident.

level of the eight thoracic vertebra, the man had a central, oblong red mark measuring about 3 cms x 2 cms. From it radiated seven or eight fern-like, raised, deep-red, urticaria-like markings that branched and re-branched to form the pattern shown in Figure 2. The longest branch measured about 30 cms. These were actually 'electric burns' and indicated physically the direction and extent of the pathways of the electric current that penetrated the man's body.

On examination, the man (Manwel Spiteri) had an apex rate of 120 irregularly irregular beats per minute and a blood pressure of 100/85. No murmurs could be detected on auscultation and lungs and abdomen showed nothing abnormal. His darting right leg was normal in colour but felt somewhat colder than the left. The dorsalis pedis pulse was equally palpable on both sides.

When asked about the accident, the stricken man narrated that he and another farmer friend were working in their respective fields close to each other. When the storm broke out, however, they scampered for shelter in opposite directions, taking refuge in their small field-room. Here they faced each other at a distance and watched the rain from just inside the doorway.

At the time of the thunderbolt, my patient was sitting on a wooden ladder (laid horizontally on the floor) and rested his left back against the metal knob of the lower door-lock (firroll) - which had been secured into the ground to steady the door. At one moment he felt a sudden burning sensation ('hruq kbir') in his back and side. This was accompanied by the onset of violent up and down movements of his right lower limb, which he noticed had suddenly become numb and of a dead-white colour.

He was not aware of having been struck by lightning and realised that something was really wrong with him only after having made repeated attempts to get up and had fallen down again each time. Upon realising that his right limb was not supporting him, he crawled towards a small hand cart lying nearby. As his field room was on the same level as the country road that led to his residence, he managed to sit on the small cart and laboriously push himself with his left leg. With great difficulty he covered the 70 metres of field road and reached ultimately the public road. By this time, his farmer friend - who records having seen 'a fireball revolving several times round Manwel' - caught up with him. He and other helpers carried him safely home and fetched medical assistance.

When I called again early next morning to visit my patient, his wife was quick to inform me that her husband had not heeded my advice to rest in bed and stated that after his leg movements had ceded abruptly (about five minutes after I had left the previous evening), he had been up and about in the room several times to check his re-acquired power. Manwel Spiteri was now

perfectly normal - apparently none the worse for his unique experience. His apex rate was a regular 72 beats per minute and all the red markings on his back had completely disappeared. He was sitting comfortably on his bed boasting that he had got away with it and proud to have been mentioned in the local Rediffusion news.

Conclusion

Manwel owes his life to the wooden ladder he was sitting on and his many variable signs and symptoms to the metal door-lock that was embedded in the ground to steady the door against which he rested his back. The earthed metal rod (an excellent electrical conductor) bridged the insulation provided by the wooden ladder and allowed a very small fraction of the thunderbolt's millions of volts of electricity to enter his body. Presumably the passage of the current was assisted by a damp or wet shirt. The central oblong red 'burn' on his left back (from which radiated the branched branches) represented the point of entry of the current through the metal lock.

Recovery was uneventful and he returned to his heavy work in his fields soon after. He was last seen by me in 1973 - still a healthy, wiry farmer with a regular apex rate of 72 beats per minute and a blood pressure of 140/90.

Manwel never bothered to know why he anomalously got fibrillation instead of cardiac arrest, which nerve was selectively stimulated to cause the initial arterial spasm of the right leg (resulting in a dead-white numb limb for about 25 minutes), why he developed those impressive violent rhythmic automatic movements of the rigid right leg (lasting over 45 minutes) and above all, why his neurological symptoms (some suggesting stimulation at level of L2, L4) occurred on the opposite side of the lesion. As there was no apparent evidence of damage to the brain to explain the contra-lateral symptoms and the automatic rhythmic elevation of the leg (as occurs occasionally in Jacksonian fits), it is to be presumed that the causes were multiple. Indeed, such a diffuse dendritic lesion must have affected the ganglia, nerve roots and the sympathetic.

References

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