

## Dupatta injuries

Developing countries often have regional peculiarities quite different from western countries. The dupatta (stole) is a hugely popular component of traditional wear in the Indian subcontinent. The long floating end of the dupatta may get entangled in a rotating wheel or machinery and cause serious injuries to a body part [1–4].

A 9-year-old girl was returning home with her mother in a cycle-powered rickshaw. Accidentally, the dupatta she was wearing got stuck in the spokes of the moving wheel and constricted her neck. Her mother, the cycle driver,

and the bystanders quickly removed the ligature (dupatta) and she was rushed to the hospital. The child never lost consciousness during the incident. On arrival at the hospital, the child complained only of some difficulty in respiration. Her vital signs were normal, as were her neurological and cardiovascular examinations. Her neck showed a near-circumferential prominent constrictive abrasion (Fig. 1). On examination by an ENT specialist, laryngeal and airway were found within normal limits. Imaging (plain radiographs and magnetic resonance scan) of the neck did not reveal any injury except for edema of subcutaneous neck tissues. The child was asymptomatic the next day and discharged home.



Fig. 1. The accidental strangulation mark over the girl's neck.

A dupatta (stole) is a long cotton or nylon scarf worn by women in the Indian subcontinent. The middle part goes in front of the woman's chest, and both ends go back over her shoulders and hang loosely at the back. A cycle-powered rickshaw is a three-wheeled vehicle pedaled by a driver. The passengers sit on a couch attached at the back. On the Indian subcontinent, it is a very cheap and handy mode of transport for short distances.

The above case report illustrates a very peculiar form of injury in a 9-year-old girl child, but very possible in Indian culture. The long loose ends of a dupatta (Fig. 2), long scarf, saree (another traditional Indian garment), chunni (a scarf similar to the dupatta), or long skirt may get entangled in moving wheels or machinery and cause trauma to a body part. Cases are documented where cloth entwined in a cycle-powered rickshaw [1–5], motorcycle [6], thresher machine [7], and even an animal [8] has caused this bizarre form of accidental strangulation. Accidental strangulation around the neck is nearly always fatal [1,2,4,9], with few recorded instances of survival (Gowens et al. [5]; this case). The injury may present a spectrum, with the insult limited to the superficial tissues of the neck region (as in this case), increasing in severity with fractures of hyoid [5] or even cervical spine [7]. The lesion may present in the form of laryngeal rupture and carotid artery stenosis (Isadora Duncan syndrome) [5]. The constrictive abrasion on the neck region may simulate homicidal strangulation [4].

Previous authors have emphasized several safety measures, such as the use of plastic or saree guards [5,6], and alterations in dress to prevent loose, flowing ends. The increasing number of reports of “dupatta injuries” strongly reinforces the need to caution cycle rickshaw and two-wheeler riders against any loose clothing. This often-fatal injury can be prevented largely through public awareness and education. Immediate loosening of the ligature by bystanders or cycle rickshaw drivers can save many lives, as what happened in this case. This should be supplemented by strong legal enforcement of laws for protective barrier application in rickshaws and two-wheelers.

## References

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Fig. 2. The long floating end of dupatta can entangle in unguarded wheels of cycle rickshaws leading to mishaps.

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