Clinical and other Notes.

SPIDER BITE SIMULATING ACUTE ABDOMEN.

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A short account of this case is considered worth recording because of the misleading nature of the presenting symptoms.

A Polish soldier, aged 47, was sent to hospital in Palestine during the night of August 2, 1940, with a tentative diagnosis of "acute appendicitis." He could speak no English and, on examination, was an obese individual, slightly cyanosed, shivering violently, with sweat literally pouring from all over him. His temperature was 97°F and pulse-rate 88, the radial pulse being very weak. He was obviously extremely ill and appeared to have intense abdominal pain and to be in a severe state of collapse. He had vomited several times during his ambulance journey. Local physical signs were confined to the abdomen where there was generalized board-like muscular rigidity and extreme tenderness all over. The urine was normal. Perforated peptic ulcer was suspected, and he was admitted to the Acute Surgical ward. The Polish interpreter then arrived and a history was obtained.

The patient stated that he was perfectly well until about two hours before admission when, on undressing in his tent, he felt a sharp pain and found that he had been bitten on the right buttock by a black spider which was caught by his companions. Within half a minute of the bite, intense pain like agonizing cramp spread up his back to his head and down all his limbs, which felt paralysed, and later over the front of his body with violent abdominal pain and vomiting. His Regimental Medical Officer came to see him and sent him to hospital diagnosed as above.

The patient himself ascribed all his symptoms to the spider which, he said, was jet black with a round body about one centimetre in diameter. No sign of a bite could be found but this appeared to be the story of a Latrodectus bite and it was decided to treat the case conservatively with complete rest, abundant fluids by the mouth, warmth, morphia to relieve the pain and intravenous calcium gluconate—10 c.c. of a 10 per cent solution.

For three days he remained in a collapsed condition being very restless and in a cold sweat. He complained of much pain saying that all his muscles...
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were painful, including those of his face and jaw. All his teeth ached. Generalized abdominal rigidity and tenderness persisted but there was no spasticity of the limbs though the tendon reflexes were all brisk. No local lesion could be found in the right gluteal region. He remained afebrile but the profuse sweating continued. He took fluids well but became somewhat dehydrated, a blood-count on August 4, 1941, showing: R.B.C., 8,920,000 per c.mm. Hb. 120 per cent. W.B.C., 10,400 per c.mm., differential count normal. Rectal salines were given to combat the dehydration.

After three days improvement began and morphia was no longer necessary to relieve the pain which gradually subsided. In two weeks he was fit enough to be sent to a Convalescent Depot. There was still then some slight weakness and stiffness of the limbs. The spider, meanwhile, had been brought to the hospital and identified as an adult female *Latrodectus lugubris* (see accompanying lifesize photograph).

The best authenticated records of evil effects from the bites of spiders refer to a small group of spiders belonging to the genus *Latrodectus* of the family *Theridiidae*. In England attention was drawn to these spiders a few years ago when live specimens of the "Black Widow" spider, *Latrodectus mactans*, arrived at the Zoological Gardens in London. They were given much publicity by the popular Press as also was their destruction at the outbreak of war as a measure of public security. Fantastic accounts of the effects of "Black Widow" bites have been written in fiction of the sensational type.

The genus has a widespread geographic distribution, being known to occur in Southern Europe, Russia, Turkey, North and South America, South Africa, Madagascar, Australia and New Zealand. *L. mactans* was given its sinister synonym in California. In Palestine, according to Bodenheimer, two species occur; the dreaded malmignatte or the black red-spotted *L. tredecimguttatus* and the entirely black *L. lugubris* which may be the "Akis" of Transjordania whose bite the Arabs believe to be fatal.

Riley and Johannsen state that up to the end of 1937 there had been 600 reported cases of *L. mactans* poisoning in the United States of America with a mortality of 4 per cent. They give an interesting account of these spiders
and quote Kobert, who reported on a series of twenty-two cases of *Latrodectus* bite treated in Russia in 1888. They describe the venom as a toxalbumen which has been shown to be about fifteen times as potent as that of the prairie rattlesnake (*Crotalus albicans*). Generalized muscular pains of an agonizing character with nausea, vomiting, and profuse sweating, are described as the usual symptoms. Manson-Bahr states that the abdominal rigidity may simulate appendicitis. He describes the venom as a haemolysin causing inflammation and oedema at the site of injection with numbness of the part, urticarial rash, nerve-pain, muscular rigidity and spasm and sometimes sloughing of the skin in the neighbourhood of the bite. There was no local lesion in the case now described, not even the mark of the bite being detectable.

**SUMMARY.**

A case of spider bite is described which presented symptoms of perforated peptic ulcer. The patient could speak no English and, if no interpreter had been available, he would undoubtedly have been subjected to a laparotomy.

Our acknowledgments are due to Colonel H. G. Peake, who commanded the hospital, for permission to publish this case.

**REFERENCES.**


**MODIFICATION OF PORTABLE DISENFESTOR.**

By Captain Cruickshank,

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The modification affects the method of heating the water in the boiler.

The boiler is the usual 5-gallon oil drum. In each end of it is cut a circular hole, 3 inches wide at the top, and 9 inches wide at the bottom end. Then, through the centre of the drum, is welded a metal cone made of some heat-resisting metal. The diameters of the upper and lower ends of the cone correspond to the two diameters of the holes cut in the drum ends. The lips of the cone are welded to the lips of these two holes.

Three metal legs are fixed to the bottom of the boiler. The last requisite is a strip of metal, whose width is slightly more than the height of the legs, of length approximately three-quarters the circumference of the drum and curved to correspond with the curve of the drum.

The filling pipe and steam outlet are as in the plan sent out by an A.D.M.S., the only other modification being a drain tap at the bottom of