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Damage to camel meat by the parasite *Onchocerca fasciata* nodules in Jordan

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Background: Like other livestock camels are exposed to and affected by a range of *Onchocerca* species. Of particular regional importance to camels are the *Onchocerca fasciata* causing worm nests in the ligamentum nuchae and subcutaneous tissues of the body. Onchocerciasis also infects human but the caused species reported is *Onchocerca volvulus* that has been reported mainly in Africa, with additional foci in Latin America and the Middle East. Symptoms include severe itching, bumps under the skin, and blindness. The parasite worm is spread by the bites of a black fly of the Simulium type.

Materials & Methods: To study the prevalence of the damage in camel meat by *Onchocerca fasciata* infection a total of 97 camels slaughtered at Ramtha Slaughter House of Jordan were studied. After slaughtering, the skin is removed and gross examination was performed on the subcutaneous tissues, muscles, ligamentum nuchae, blood vessels and internal organs. The presence of cutaneous nodules were carefully examined and then opened. Living parasites were removed and sent to the Department of Parasitology for diagnosis. The gross damage to the local tissue was described and photographed. Selectively tissue samples were collected, preserved in buffered 10% formalin solution and processed by standard histopathological techniques and stained with haematoxylin and eosin.

Results: It indicated that out of 97 camels examined, out of which 8 camels were infected (8.24%) with *Onchocerca fasciata*. Most of older camels (over 4 years) had higher infection rate while younger one (1 to 2 years old) were not seen infected. Following slaughtering parasite nodules were found grossly visible on ligamentum nuchae as well as in the subcutaneous tissues of the abdominal cavity on the muscles of abdomen including the rectus abdominis muscle and the external oblique abdominis muscle. Also nodules of the parasite were seen in the head region close to the eye in the cervicocutularis muscle, under the ear in the zygomaticocutularis muscle, and in the occipitofrontalis muscle. Because of the damage in the camel meat by parasite nodules, six carcasses were passes the inspection with local condemnation of the affected parts. Two carcasses were total condemned because of the extensive nodule involvements of the body.

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