

INTISARI

KUALITAS DAN PROFIL NUTRISI DAGING SERTA DISTRIBUSI VIRUS DI JARINGAN DARI SAPI YANG TERKONFIRMASI *LUMPY SKIN DISEASE* (LSD)

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Lumpy skin disease (LSD) adalah penyakit virus lintas batas pada sapi dan kerbau yang disebabkan oleh *lumpy skin disease virus* (LSDV). Penyebaran virus LSD yang cepat dan agresif ke berbagai organ, preferensi pada kulit, dan *shedding* di mukosa setelah infeksi terjadi. Penyebaran virus pada daging dari sapi yang bergejala klinis maupun subklinis, dapat menimbulkan kekhawatiran bagi masyarakat untuk mengonsumsi dagingnya. Menurut Organisasi Kesehatan Hewan Dunia, penyakit LSD tidak bersifat zoonosis namun dampak keamanan pada daging sapi dan produk jeroan belum diketahui. Penelitian ini bertujuan untuk mengetahui kualitas dan profil nutrisi daging dan distribusi virus LSD di jaringan dari sapi yang terkonfirmasi *lumpy skin disease* (LSD), serta evaluasi penerapan higiene juru sembelih halal terhadap pemotongan sapi LSD.

Koleksi sampel daging berasal dari 6 ekor sapi yang menunjukkan gejala klinis berupa nodul kulit maupun keropeng. Sampel jaringan yang diambil adalah paru-paru, jantung, ginjal, hati, dan limpa, serta bagian daging yang terletak dekat maupun jauh dari lesi untuk mengetahui distribusi virus LSD. Deteksi dan distribusi virus LSD dengan *Polymerase Chain Reaction* (PCR), pemeriksaan kualitas dan nutrisi daging meliputi uji organoleptik, uji awal pembusukan, dan analisis proksimat.

Hasil uji PCR menunjukkan 4 sampel daging yang positif ditandai adanya amplikon yang ukuran 192 bp. Sampel paru-paru, jantung, ginjal, hati, dan limpa menunjukkan hasil negatif PCR. Hasil uji organoleptik normal meliputi warna merah terang, aroma khas sapi, tekstur sedang, konsistensi kenyal, dan nilai pH 6.2. Hasil uji awal pembusukan menunjukkan semua sampel belum terjadi awal pembusukan. Hasil analisis proksimat menunjukkan kadar protein 24.89%, air 73.02%, lemak 2.22%, dan abu 0.98%. Juleha dalam sikap dan praktik pemotongan sapi LSD yang kurang memperhatikan higiene sanitasi disebabkan rendahnya pengetahuan terkait penyakit LSD, penanganan dan pemotongan sapi dengan gejala LSD.

Berdasarkan hasil penelitian ini dapat disimpulkan, bahwa daging sapi yang terkonfirmasi LSD masih layak dikonsumsi, didukung oleh kandungan nutrisi (protein, lemak, abu, dan air) yang masih memenuhi standar. Rendahnya pengetahuan juleha sehingga sikap dan praktik penerapan higiene juleha menjadi kurang efektif dalam pemotongan sapi LSD. Hal ini memungkinkan menjadi faktor risiko sumber penularan penyakit LSD.

Kata Kunci: *Lumpy skin disease* (LSD); deteksi LSD; kualitas daging; nutrisi; higiene.

ABSTRACT

MEAT QUALITY AND NUTRITIONAL PROFILE AND VIRUS DISTRIBUTION IN TISSUES FROM CATTLE WITH CONFIRMED LUMPY SKIN DISEASE (LSD)

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Lumpy skin disease (LSD) is a transboundary viral disease of cattle and buffalo caused by lumpy skin disease virus (LSDV). Rapid and aggressive spread of LSD virus to various organs, preference for skin, and shedding in the mucosa after infection occurs. The spread of the virus in meat from cattle with clinical or subclinical symptoms can cause concern for the public to consume the meat. According to the World Organisation for Animal Health, LSD is not zoonotic but the safety impact on beef and offal products is unknown. This study aims to determine the quality and nutritional profile of meat and the distribution of LSD virus in tissues from confirmed lumpy skin disease (LSD) cattle, as well as evaluate the application of halal butchers' hygiene to the slaughter of LSD cattle.

Meat samples were collected from 6 cattle that showed clinical symptoms of skin nodules and scabs. Tissue samples were taken from the lungs, heart, kidneys, liver, and spleen, as well as parts of the meat located near and far from the lesions to determine the distribution of LSD virus. Detection and distribution of LSD virus by Polymerase Chain Reaction (PCR), examination of meat quality and nutrition including organoleptic test, early decay test, and proximate analysis.

The PCR test results showed 4 positive meat samples characterised by the presence of amplicons with a size of 192 bp. Lung, heart, kidney, liver, and spleen samples showed negative PCR results. Normal organoleptic test results include bright red colour, typical beef aroma, medium texture, chewy consistency, and pH value of 6.2. The results of the early decay test showed that all samples had not experienced early decay. Proximate analysis results showed protein content of 24.89%, water 73.02%, fat 2.22%, and ash 0.98%. Halal butchers's attitude and practice of slaughtering LSD cattle that pay less attention to sanitary hygiene is due to low knowledge related to LSD disease, handling and slaughtering cattle with LSD symptoms.

Based on the results of this study, it can be concluded that LSD-confirmed beef is still suitable for consumption, supported by nutritional content (protein, fat, ash and water) that still meets the standards. The low knowledge of halal butchers resulted in less effective attitude and hygiene practices in slaughtering LSD cattle. This may be a risk factor for LSD disease transmission.

Keywords: Lumpy skin disease (LSD); LSD detection; meat quality; nutrients; hygiene