

EPIDEMIOLOGICAL AND DIAGNOSTIC STUDY OF COLIBACILLOSIS IN LAMBS IN IRAQ

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SUMMARY

Colibacillosis in lambs was studied in three animal farms. 86 out of 226 lambs born during the period of the study showed clinical signs of the disease (morbidity rate was 38.05%) and 7% of the cases were septicemic while the remaining 93% were enteric.

87 E. coli isolates were obtained and all of them showed identical results in the biochemical tests to that of the standardized E. coli.

47 of these isolates gave positive results in the infant mice test which depends on the enterotoxin production. Antimicrobial sensitivity tests were performed for all isolates.

The serogroups which caused the disease were: 05:K?, 08:K?, 08:K85, 08:K85:K99, 09:K35, 026:K60, 078:K80, 0126:K71, 0(R) :K?, and the most common serogroup was 08 followed in importance by 0126, 09, and 0 (R).

INTRODUCTION

Colibacillosis is an important cause of mortality in lambs (Sojka, 1971). Two forms of the disease are recognised:

1. A septicemic form caused by the "invasive" (bacteraemic) strains of Escherichia coli in 2-3 weeks old lambs.
2. An enteric form in which the involved enteropathogenic strains of this organism affects 2-8 days old lambs.

In neonatal coli form diarrhoea, enteropathogenic strains of E. coli (EPEC) colonise the small intestine and produce an enterotoxin that causes diarrhoea. The condition often associated with adverse environmental factors such as wet, cold and windy weather, pronounced temperature changes, overcrowding and unsanitary lambing sheds.

The objective of this work is to:

1. Determine the morbidity and mortality rate of colibacillosis in lambs in the farms included in this study.
2. Isolate E. coli from lambs with enteric and septicemic form of colibacillosis and to determine, by using suckling mice model, the ability of E. coli to produce enterotoxin.
3. Serotyping the isolates and determining the important serotypes associated with the disease in lambs.
4. Determining the sensitivity of isolates to antibiotics