

## ABSTRACT

### **Background:**

Porcine Cysticercosis (PC) infection is globally classified as a neglected and re-emerging tropical disease. The disease is endemic in Western Kenya yet smallholder farmers continue to practice scavenging pig production, thereby posing public health risk. This study determined the prevalence of PC infection at the farms and slaughter slabs in a cross-sectional survey in two Counties (Busia and Kakamega) of Western Kenya.

### **Materials and Methods:**

Two hundred and eighty-seven (287) heparinized blood samples were collected at the farm from 162 households in 9 villages and 113 pigs from 5 slaughter slabs. The prevalence of PC was detected through meat inspection at slaughter slabs, and the prevalence of *Taenia solium* antigen determined by using the ApDia Ag-ELISA test at the farms and slaughter slabs.

### **Results:**

At meat inspection, the PC prevalence was 1.8%, while prevalence of *Taenia Species* cysts detected with Ag-ELISA test was 3.8% at the farms, and 5.3 % at the slaughter slabs. The Ag-ELISA test had sensitivity of 100% (95% CI: 19.79– 100.00) and specificity of 96.4% (95% CI: 90.49– 98.84).

### **Conclusion:**

The PC prevalence levels observed among scavenging pigs in Western Kenya should be a cause of public health risk concern. This observation warrant enforcing mandatory pig confinement, and use of latrines at the farms and meat inspection at local slaughter slabs. Further studies are recommended to identify different *Taenia* species in cysticercoids pigs in the region, which this study could not differentiate.

**Keywords:** Pig, *Taenia spp*s, meat inspection, ELISA test, Slaughter slabs, Smallholder farmers