



COAL TAR TOXICITY

INFORMATION FOR PIG KEEPERS AND VETERINARY SURGEONS

What is coal tar?

Coal tar and asphalt are bituminous materials which contain a complex mix of chemicals some of which are toxic to pigs. These materials are the second most common cause of toxicity incidents in pigs diagnosed by the Animal Plant and Health Agency (APHA) over the last decade, the most common being bracken poisoning. Recent cases due to ingestion of tarmac residue and old clay pigeon fragments highlight the need to raise awareness of the risk of coal tar toxicity amongst pig keepers and veterinary practitioners and the importance of investigating promptly where there is poor response to treatment and increasing mortality. The incidents have significant pig health and welfare implications in addition to food safety concern.

Where is coal tar found?

Sources of coal tar include road surface waste, tar roofing felt, tarmac flooring, creosote and some older forms of clay pigeon in which pitch was used as a binder. Tarmac and asphalt surfaces pose a risk if damaged or incompletely removed and accessible to pigs. Pigs seem particularly susceptible to coal tar poisoning, probably due to their inquisitive and rooting behaviour, omnivorous nature and good sense of smell. Pig keepers should be alert to possible sources in the vicinity of their pigs and ensure they cannot be accessed.

Protecting the food chain

Toxicity incidents are reported to the Food Standards Agency and investigated to assess risks to the food chain from potential residues at slaughter. Where appropriate, voluntary restrictions are applied requiring withdrawal from the source and then at least 28 days must elapse before pigs can be slaughtered for human consumption.

Clinical signs and pathology

Phenols in coal tar causes liver damage leading to liver failure and affected pigs show non-specific clinical signs including lethargy, weakness, inappetance, ataxia, wasting and deaths unresponsive to antimicrobial treatment, sometimes widespread. Post-mortem examination reveals anaemia, oedema, fluid in the abdomen and enlarged friable markedly mottled livers which may split resulting in intra-abdominal haemorrhage.

Figure 1a and b: Severe liver damage (1a) in pig with coal tar toxicity, with oedema and ascites (1b)

1a



1b



Figure 2a and b: Coal tar sources – tarmac surface residue (2a); fragments from clay pigeon shooting (2b)

2a



2b



Regularly check the environment of your pigs to prevent access to sources of coal tar or asphalt and consult your veterinary surgeon if your pigs show clinical signs especially when unusual, severe, widespread or unresponsive to treatment