

REGIONAL VETERINARY LABORATORIES REPORT

MARCH 2026

Regional Veterinary Laboratories (RVLs) carried out necropsy examinations on 1,019 carcasses and 353 fetuses during March 2026. Additionally, 1,757 diagnostic samples were tested to assist private veterinary practitioners (PVPs) with the diagnosis and control of disease in food producing animals. This report describes a selection of cases investigated by the Department of Agriculture, Food and the Marine's (DAFM) veterinary laboratories in March 2026.

The objective of this report is to provide feedback to veterinary practitioners on the pattern of disease syndromes at this time of the year by describing common and highlighting unusual cases. Moreover, we aim to assist with future diagnoses, encourage thorough investigations of clinical cases, highlight available laboratory diagnostic tools, and provide a better context for practitioners when interpreting laboratory reports.

Cattle

Enteritis and abomasal ulcer/perforation were the most common diagnoses at necropsy in cattle in the RVLs during March 2026.

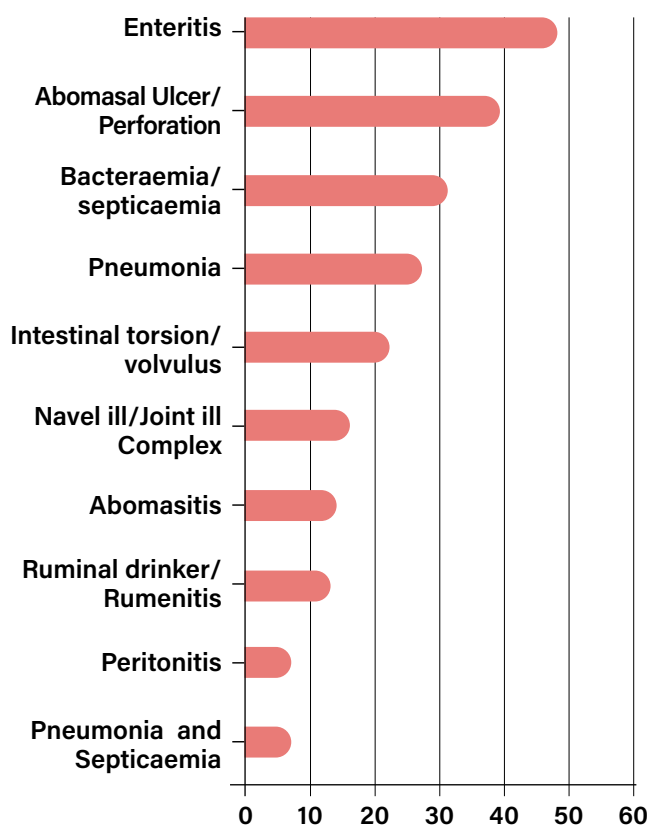


Table 1: The most common diagnoses in cattle submitted for necropsy in March 2026.

Gastrointestinal Tract

Traumatic Reticuloperitonitis

Athlone RVL examined a nine-year-old cow that had been euthanised, with a history of being unwell for one week with milk drop, anorexia, bruxism and dullness. On examination, there was severe thoracic and pericardial effusion with purulent and haemorrhagic exudate. Multifocal adhesions were found on the epicardium, pericardium, thoracic diaphragm, and pleura. In addition, diaphragmatic adhesions to the cranial forestomach were present in the abdomen. Traumatic reticuloperitonitis causing pericarditis and pleuritis was diagnosed given the clinical history and necropsy

findings. Traumatic reticuloperitonitis or hardware disease can present with various clinical signs depending on the location and severity of the injury, but commonly includes inappetence, milk drop, reluctance to move, grunting, and bruxism. A positive withers pinch test with expiratory grunt can sometimes be elicited in the living animal.



Figure 1: Fibrinous pericarditis due to traumatic reticuloperitonitis. Photo: Aoife Coleman.

A six-year-old cow was submitted to Kilkenny RVL. On necropsy, there was a severe fibrinous peritonitis. There was a large volume of malodorous exudate in the peritoneal cavity and there was fibrin on the serosal surfaces of intestines and organs. The reticulum was firmly adhered to the diaphragm. Although no wire or foreign body was identified in the reticulum, the prior involvement of a "wire" or traumatic reticuloperitonitis was considered likely.



Figure 2: Malodorous fluid in the peritoneal cavity in a case of suspected traumatic reticuloperitonitis. Photo: Aideen Kennedy.

Intestinal Atresia

Two dairy calves from the same herd were submitted to Kilkenny RVL with a history of not passing faeces. On post-mortem examination, both had atresia jejuni and peritonitis. Intestinal atresia is usually considered a sporadic event although there may be a hereditary aetiology in some dairy calves. An ischaemic event affecting intestinal vasculature and subsequent intestinal malformation is considered to be the most likely explanation for sporadic cases.

Abomasitis

A ten-day-old, Friesian female calf was submitted to Dublin RVL following sudden death, with no preceding signs of illness reported. The calf had previously received an intranasal vaccine and had been fed transition milk for the first five days of life, after which it was transferred onto milk replacer delivered via an automatic feeder. On external examination, the carcass was moderately bloated and bilateral scleral congestion was noted. Upon opening, the main gross finding was in the abomasum, where the mucosa was severely oedematous, emphysematous, and congested; the abomasal contents were dark and watery, and no milk clot was present. Histopathological examination confirmed a severe emphysematous and necrotising abomasitis with numerous organisms consistent with *Sarcina* sp. present within the lesions.



Figure 3: Abomasitis; the abomasal folds and mucosa are severely oedematous, emphysematous, and congested. Photo: Sara Salgado.

Abomasitis due to *sarcina* spp.

Sarcina spp. are fastidious, gram-positive anaerobic bacteria characteristically arranged in cuboidal packets usually with eight or more cells. Affected calves are typically found dead or moribund following a short clinical course dominated by abomasal bloat. The organisms proliferate in acidic environments and in the presence of excess fermentable carbohydrate within the abomasum, such as might occur following the ingestion of a large volume of milk. Because *Sarcina* spp. have demanding growth requirements and are difficult to culture in the routine diagnostic laboratory, the diagnosis is most often reached on histopathology. Until the specific risk factors for *Sarcina*-associated disease are better characterised, practical advice centres

on minimising the conditions that favour proliferation of fermentative organisms within the abomasum. Strict hygiene should be maintained when preparing and handling milk feeds for young ruminants, with particular attention to the cleaning and disinfection of buckets, teats, mixing utensils, oesophageal feeders, and the components of automatic feeders, all of which can act as reservoirs of contamination. Soil contamination of milk, milk replacer, and forage should be avoided. Feeding practices that predispose to large carbohydrate loads in the abomasum should be reviewed; milk replacer should be reconstituted strictly to the manufacturer's specifications, fed at consistent temperature and concentration, and offered in regular smaller volumes rather than infrequent large meals. On automatic feeder systems, attention should be paid to mixing temperature, daily cleaning cycles, and the allowance settings per visit, since irregular intake patterns can result in calves consuming unusually large volumes in a single feed.

A five-week-old Friesian heifer calf that died suddenly from a suspected twist or bloat was submitted to Limerick RVL. Necropsy revealed severe abomasal bloat, with marked oedema and inflammation of the folds and mucosa. Histopathology disclosed an abomasitis with congestion, haemorrhage, emphysema, and oedema, with *Sarcina* sp. present.

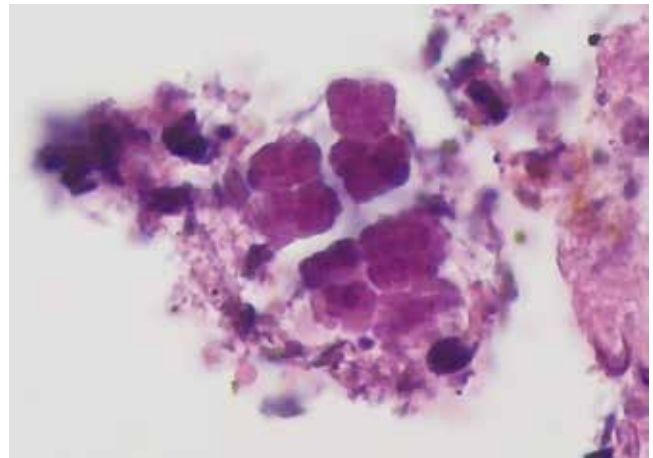


Figure 4: Characteristic tetrameres of *Sarcina* sp. in a case of bovine abomasitis. Photo: Brian Toland.

Haemorrhagic abomasal ulcer

Limerick RVL examined a two-month-old Friesian cross calf with no response to treatment for diarrhoea. On external examination, the mucous membranes were white and there was dark brown/black faecal staining of the tail. Necropsy revealed a non-perforated abomasal ulcer approximately 2.5cm in diameter with severe intraluminal haemorrhage and oedema of abomasal folds. A diagnosis of exsanguination from bleeding abomasal ulcer was made, no pathogens were detected. Factors that are considered to contribute to the incidence of abomasal ulcers are overuse or prolonged use of non-steroidal anti-inflammatory drugs (NSAIDs); corticosteroids; physiological stress; concurrent disease; mineral deficiencies, such as copper deficiency; quality of milk replacer; feeding frequency; volume of milk per feeding; erratic feeding schedule; temperature of feed; osmolality of the milk replacer; poor mixing of the milk replacer; slower abomasal emptying time; type and quality of roughage being fed; trichobezoars; and the presence of certain enteric pathogens.



Figure 5: A non-perforated abomasal ulcer (below label) that caused severe haemorrhage and subsequent death of a calf. Photo: Brian Toland.

Intestinal volvulus

Sligo RVL examined the carcass of a five-week-old calf which had been observed with signs of abdominal pain before death. On post-mortem examination, severe dehydration and generalised pallor was noted. Jejunal sections were discoloured dark red, with haemorrhagic contents. *Campylobacter coli* was cultured from intestinal contents. The gross findings are highly suggestive of an ante-mortem, sectional, intestinal volvulus, most likely caused by a bacterial enteritis. *Campylobacter coli* has been associated with enteritis in calves. The client was made aware of the zoonotic potential of this agent.

Enteric pathogens in young calves

Enteritis was the most common cause of death in bovines in both February and March 2026. The high number of deaths due to enteric conditions at this time of the year is driven by the high incidence of diarrhoea due to infection in neonatal and young calves. Rotavirus and *Cryptosporidium parvum* were the most commonly isolated pathogens detected in young calves during the first three months of 2026.

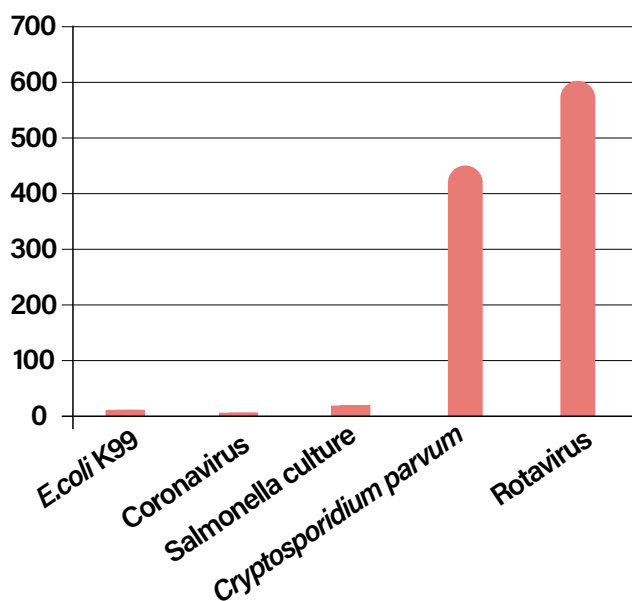


Table 2: Enteric pathogens in young calves, quarter one 2026.

Respiratory Tract

Fibrinous pleuropneumonia

Athlone RVL examined a seven-year-old cow that had become recumbent one week earlier after calving and was treated for milk fever and responded. She was found down again and was given a bottle of calcium but died soon after. There was a severe, diffuse, bilateral, cranioventral, fibrinous pleuritis and pneumonia with marked interlobular fibrinous oedema. The uterus contained some blood clots and was not fully involuted. Other organs, including the mammary gland, were unremarkable. *Mannheimia haemolytica*, *Histophilus somni*, and *Pasteurella multocida* were all detected in the lungs by polymerase chain reaction (PCR). A conclusion of Pasteurella-type fibrinous pleuropneumonia was made. Over the past decade, outbreaks of fatal *M. haemolytica* fibrinous pleuropneumonia have been diagnosed in dairy herds in the Netherlands, UK, and Ireland. Scottish studies have identified stressors, inadequate biosecurity (purchase of cattle), and housing as risk factors for these outbreaks.



Figure 6: Fibrinous pleuropneumonia from which multiple bacteria including *Mannheimia haemolytica* were found. Photo: Denise Murphy.

Salmonellosis

The carcasses of two two-week-old calves with a history of sudden death were presented to Sligo RVL. Both calves presented with mottled and partially consolidated lungs. One calf presented with milk in the rumen and white caseous adhesions on the ruminal mucosa. *P. multocida* was detected in the lung lesions. Culture of intestinal contents of both calves yielded *Salmonella enterica* serovar Typhimurium. *Salmonella* Typhimurium tends to be associated with severe outbreaks in calves less than two months old. The private veterinary practitioner and owner were made aware of the zoonotic potential of this agent. Further, as this agent is notifiable, the regional veterinary office was informed.

Urinary/Reproductive Tract

Foetal hypoxia



Figure 7: Costal fractures in a stillborn calf. Photo: Aideen Kennedy.

Two nine-month-gestation foetuses were submitted to Kilkenny RVL, they were not twins. Four cases of stillbirth had been reported in the herd. The foetuses had meconium staining on the coat, amniotic fluid in the trachea, costal fractures and haemorrhages on the thoracic wall, and heavy, congested, uninflated lungs. The findings were suggestive of dystocia and foetal hypoxia. No agent was detected on culture or PCR using available panels. Histopathology disclosed squames and meconium in the airways suggesting foetal respiratory distress and hypoxia. Placentas were not submitted to rule out placentitis. Herd owner was advised to consider factors that might lead to prolonged calving, such as body condition score of the cows, subclinical hypocalcaemia, and disturbance during early stages of calving. It was advised to blood sample some of the post-parturient and late-stage dry cows (if this was possible without adverse effects) to assess the possibility of metabolic issues contributing to the suspected dystocia.



Figure 8: Amniotic fluid in the trachea of a stillborn calf. Photo: Aideen Kennedy.

Foetus with severe goitre and hypotrichosis

A full-term bovine foetus was submitted to Sligo RVL. This was the second abortion on a suckler farm. On necropsy, hypotrichosis and severe goitre were the main findings. PCR testing was negative for the most common abortifacient agents. Histopathological findings were as follows: the skin demonstrated hypoplastic hair follicles; the liver showed diffuse, severe fatty vacuolation of hepatocytes with periacinar necrosis; and the thyroid exhibited marked epithelial hyperplasia with lack of follicle and colloid formation. Hepatic steatosis, hypoplastic hair follicles, and goitre are consistent with hypothyroidism.



Figure 9: Hypotrichosis and severe goitre in a stillborn calf. Photo: Fiona Kane.

Iodine deficiency can manifest with several clinical signs including: reproductive failure, weak calves, and stillbirths. Deficiency may be primary, associated with low iodine levels in soil, or secondary, associated with the intake of goitrogenic feedstuffs, such as brassicas. Interpretation of iodine testing in dams requires caution, as results can be of limited practical value. Selenium also plays a role, as selenium-dependent enzymes are required for the conversion of T4 to active T3. In this case, mineral supplementation and review of feeding management throughout pregnancy are recommended.

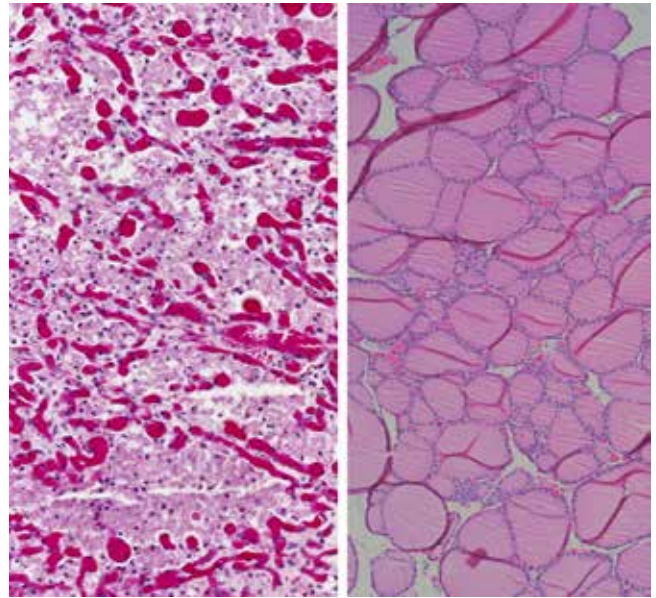


Figure 10: Epithelial hyperplasia of the thyroid with lack of follicle and colloid formation (left); normal thyroid for comparison (right). Photo: Ann Sharpe.

Cardiovascular system

Omphalophlebitis

A two-week-old calf died kicking and in pain, and was submitted to Kilkenny RVL. There was navel ill. The umbilical vein was enlarged and contained purulent material and tracked from the navel to the liver with abscessation in the liver. The abomasum was bloated and partially entrapped by the umbilical vein. There was pneumonia affecting approximately 15 per cent of the lungs. Laboratory testing showed failure of passive transfer of colostral immunity, zinc sulphate turbidity (ZST) results were below 12. *M. haemolytica* was cultured from multiple organs indicating a bacteraemia; a review of navel hygiene at calving was recommended along with a review of colostrum management.



Figure 11: Umbilical vein, enlarged and containing purulent material. Photo: Aideen Kennedy.

Ventricular septal defect

A three-week-old Limousin cross suckler calf was submitted to Limerick RVL with a suspected heart murmur. Post-mortem examination revealed a ventricular septal defect (VSD) and a 'nutmeg' liver. VSD is a congenital heart defect where there is a hole in the heart muscle septum that separates the two ventricles of the heart. Blood is shunted from the left to right ventricle leading to right-sided heart failure. 'Nutmeg' liver indicates chronic, passive congestion caused by right-sided heart failure.



Figure 12: Ventricular septal defect. Photo: Brian Toland.

Bacteraemia/septicaemia

Athlone RVL examined a six-week-old Hereford cross male calf that had been noticed not drinking one evening, was treated by the herd owner, and was found dead the next morning. There was endocarditis on left atrio-ventricular (A-V) valve and multifocal necrotic lesions in the myocardium both left and right. There were multifocal renal infarcts in both kidneys and fibrin in the left carpal joint. The liver was enlarged with rounded edges. There was diffuse pulmonary congestion and oedema and consolidation of the right anteroventral lung. The navel was unremarkable. *Staphylococcus aureus* was isolated across multiple matrices in the carcase. A conclusion of *S. aureus* bacteraemia, with cardiac necrosis, endocarditis, renal infarcts, joint ill, and pneumonia, was reached. *S. aureus* in calves typically presents as dermatitis, abscesses, or systemic issues, such as joint ill, often arising from environmental exposure or consuming contaminated milk. Feeding waste milk from *S. aureus* mastitis-infected cows can transmit the bacteria to calves.



Figure 13: Renal infarcts due to bacteraemia. Photo: Denise Murphy.

Sheep

Bacteraemia/septicaemia and pneumonia were the most common diagnoses at necropsy in sheep in the RVLs during March 2026.

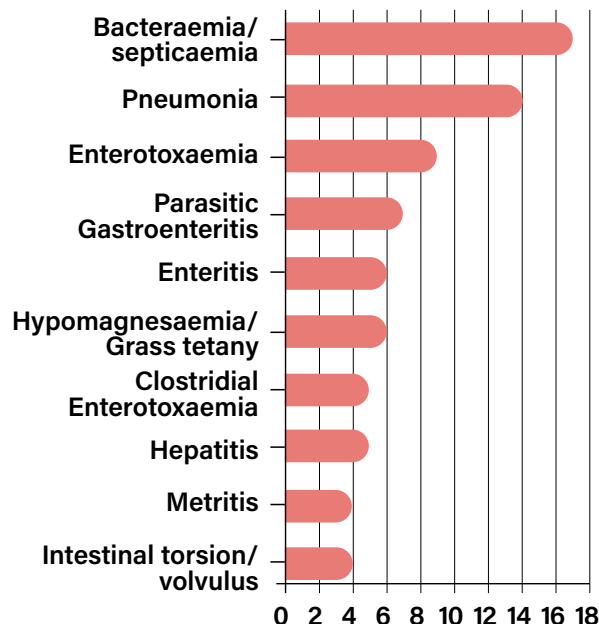


Table 3: The most common diagnoses in sheep submitted for necropsy in March 2026.

Gastrointestinal Tract

Hepatic necrobacillosis

Athlone RVL examined a pair of four-day-old twin lambs. They had been healthy and suckling when initially born but became lethargic after two days and died. On gross necropsy, both lambs displayed multifocal, circular, off-white, well-demarcated foci approximately 5mm wide, with fibrinous tags on the surface of the liver. Upon histopathological examination, the livers had multifocal necrotic lesions with amorphous debris centrally, surrounded by a ring of degenerating leukocytes (mainly neutrophils) mixed with basophilic bacterial filaments, surrounded by a zone of hyperaemia. In the associated sections of lung from both lambs, there was a mild, mononuclear interstitial pneumonia. The hepatic lesions are typical of hepatic necrobacillosis caused by the bacterium *Fusobacterium necrophorum* infection. This is a fatal condition caused by the spread of an umbilical infection with *F. necrophorum* (footrot bacteria) to the liver. Typically, affected lambs are first noted from 10 to 14 days old when they appear dull and depressed, and in poor condition.

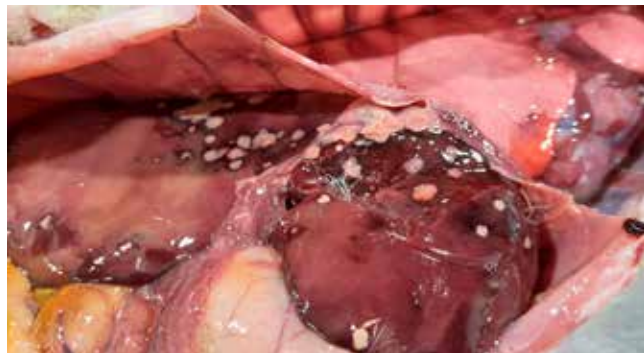


Figure 14: Lesions of hepatic necrobacillosis caused by *Fusobacterium necrophorum*. Photo: Aoife Coleman.

Septicaemia and embolic bacteraemia

The carcasses of two one-year-old hoggets which had been noted dull before death were presented to Sligo RVL. There were haemorrhagic small intestinal contents. Large numbers of strongyles were present in the caecum. One animal presented with metritis. *Bibersteinia trehalosi* was detected in lung and liver. *Listeria monocytogenes* and *Anaplasma phagocytophyllum* were detected in the uterus. A severe strongyle burden was detected in the faeces. On histopathology, there was multifocal interstitial pneumonia with microthrombosis. Multifocal, acute, randomly distributed, necrotising hepatitis with bacterial colonies was present. Septicaemia and embolic bacteraemia were diagnosed as the cause of death. The significance of the detected *Listeria* remained unclear.

Respiratory tract

Athlone examined a two-week-old lamb that was found dead at grass. This was the fourth lamb to have died in the group in the previous week. On necropsy, there was a severe, bilateral, fibrinous pleuritis and pericarditis. There were multifocal, fibrinous adhesions along costal pleurae and interlobular planes. *M. haemolytica* was cultured from the lungs and pericardium.



Figure 15: Severe, bilateral, fibrinous pleuritis and pericarditis. Photo: Aoife Coleman.

Urinary/reproductive tract

Enzootic abortion of ewes

Limerick RVL examined four lamb foetuses, with placentas, from a flock with a history of abortions and premature weak lambs. Ewes were in good body condition, healthy, and passed their cleanings. Main findings at post-mortem examination were placentitis with severe inflammation of intercotyledonary areas. PCR results revealed strong positives for *Chlamydia abortus*, the causative organism of enzootic abortion of ewes (EAE), which presents as late-term abortions, stillbirths, or weak lambs. Aborted lambs, afterbirth, and discharges from aborted ewes are heavily contaminated and can infect other pregnant sheep for three weeks post-partum. Non-pregnant female sheep, including newborn lambs, can pick up the infection from an aborting ewe; the organism will remain latent until the animal is 90 days pregnant and then become active, causing the animal to abort. The disease can enter an uninfected flock through bringing in infected sheep that picked up the infection at lambing time. Flock owners should be advised of the zoonotic risks.



Figure 16: Placentitis with severe inflammation of intercotyledonary areas, tests were positive for *Chlamydia abortus*. Photo: Brian Toland.

Sligo RVL examined a late-term ovine foetus submitted with placenta. The placenta presented with diffuse raised white purulent nodules 2-3mm in size. *C. abortus* was detected from this placenta. This case highlights the importance of placental submissions for abortion investigations.

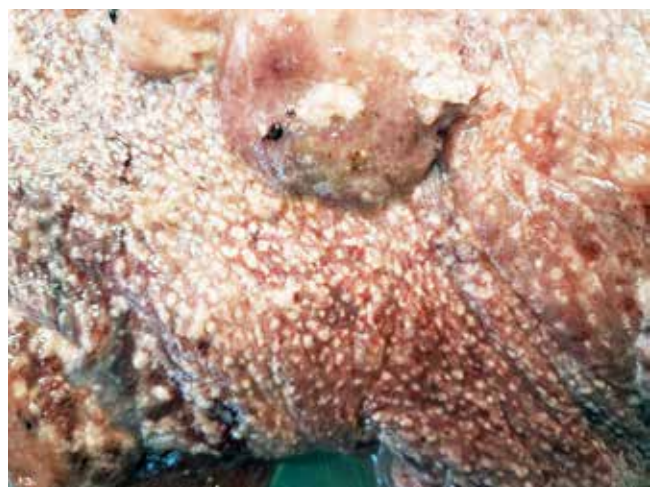


Figure 17: Placenta of a case of enzootic abortion of ewes. Photo: Rebecca Froehlich-Kelly.

Hypocalcaemia

A five-year-old pregnant ewe was submitted to Kilkenny RVL. She had become recumbent a couple of days post-vaccination. On examination, the ewe had a lot of internal body fat. The uterus contained two very large lamb foetuses. Biochemistry results confirmed hypocalcaemia, possibly precipitated by the stress of handling for vaccination in a ewe in late pregnancy that was over-conditioned.



Figure 18: Uterus containing two very large lamb foetuses in a ewe with hypocalcaemia. Photo: Aideen Kennedy.

Cardiovascular system

Omphalitis with pleuritis and pneumonia

Athlone RVL examined a one-week-old lamb that had been noticed slow and slightly bloated out in the field; the lamb was brought indoors and treated by the flock owner, but there was no response and it died. It was the fourth similar loss in four days. The navel was infected; however, the joints were unaffected. The liver was jaundiced and there were multifocal pinpoint white foci of necrosis throughout the liver parenchyma. Splenic enlargement was observed. Fibrinous adhesions were present between right cranial lung lobe and the costal pleura. *L. monocytogenes* was isolated from liver and lung. A conclusion of navel ill leading to hepatic necrosis and pneumonia was reached.

Pigs

Dublin RVL saw a finisher pig from a commercial unit with a history of sudden death. Gross post-mortem examination found several large, pale, friable, vegetative lesions attaching to the leaflets of the left atrioventricular valve (mitral valve) of the heart. Fibrinous pericarditis and pulmonary consolidation were also found in the same pig. Bacterial culture of the endocardial lesion, the pericardium, and lung tissue all yielded a growth of *Streptococcus suis*. *S. suis* is a commensal of the upper respiratory tract in pigs and may invade tissues and bloodstream where there is concurrent infection or management stress.

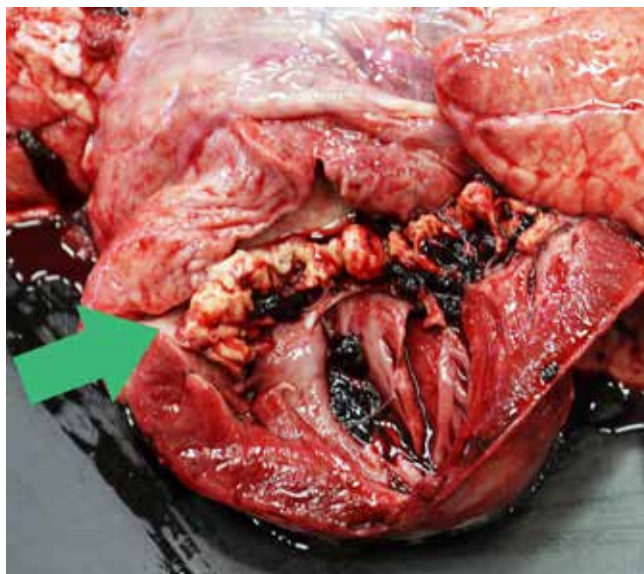


Figure 19: Proliferative vegetative endocarditis affecting the mitral valve (arrow) in a pig which yielded a culture of *Streptococcus suis*. Photo: Colm Brady.

Spinal abscessation

A pig production unit recently reported low morbidity associated with the sudden onset of hindlimb paralysis in pigs at the fattening stage. Two affected animals were euthanised and submitted for post-mortem examination to Dublin RVL. Examination of the thoracic vertebral column (between vertebrae T3 and T5) revealed a well-demarcated, encapsulated abscess containing yellow, purulent, caseous material. On longitudinal sectioning, the abscess was observed to protrude into the vertebral canal. There was marked lysis, destruction, and haemorrhage of the vertebral body of T4. Similar findings were observed in both animals. Culture results were non-specific. It was suspected that a

bacteraemia earlier in the life cycle could be responsible, and a review of possible sources was recommended.



Figure 20: Abscessation of the vertebral column in a fattening pig. Photo: Fiona Kane.