The Role of Peritoneal Calcification in the Pathogenesis of Encapsulating Peritoneal Sclerosis

Encapsulating peritoneal sclerosis (EPS) is a rare but often fatal complication of peritoneal dialysis. The condition is associated with late stage diagnosis and poor outcomes. It is characterised by the presence of scar tissue which has gradually developed from the interior lining of the abdomen (peritoneum) to form a “cocoon”, leading to blockage of the bowel. Previous work in our department has already demonstrated that deposition of a bone-like substance (containing calcium) into the abdominal lining is a central part of cocoon formation. However, we are still unsure of the exact mechanism which underpins this process. Our hope is to successfully identify molecular markers which could allow the earlier detection of this pathological process, as well as potential areas which could be targeted in order to stop or reverse the process. Manchester Royal Infirmary is one of two nationally commissioned referral centers for EPS patients in the UK and our database of such patients is the largest in Europe. Therefore, we are well-placed to make the next breakthrough in the understanding of this morbid and life-threatening condition.