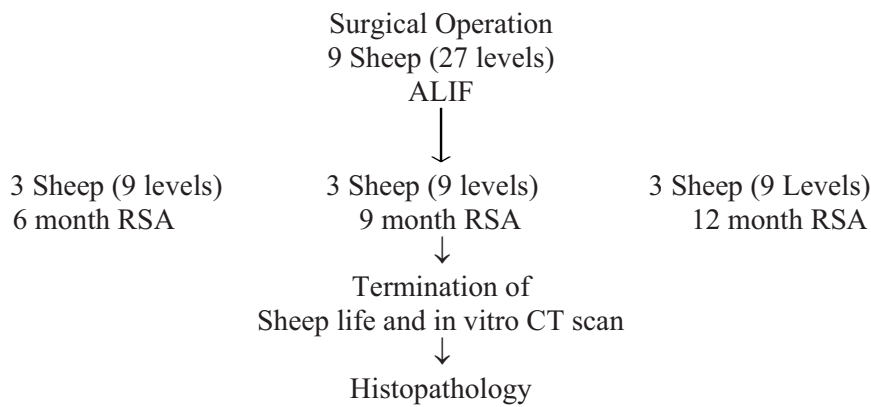


### Study Protocol Specification

Three non-adjacent ALIFs (L1-L2, L3-L4, and L5-L6) were performed in 9 sheep. The sheep were divided into three groups of 3 sheep. The first group had RSA 6 months after surgery. The second group had RSA 9 months after surgery. The third group had RSA 12 months after surgery. All the animals were humanly killed immediately after having the scheduled RSA. The lumbar spine was

removed and in vitro fine cut CT and histopathology were performed.

Using histological assessment as the gold standard for assessing fusion, RSA demonstrated better results (100% sensitivity and 66.7% specificity (PPV = 27.3%, NPV = 100.0%)) compared with CT (66.7% sensitivity and 60.0% specificity (PPV = 16.7%, NPV = 93.8%).



**Fig. 1** Summary of the method of the study.