

## THORACIC DUCT LYMPH FLOW AND ITS DRIVING PRESSURE IN ANESTHETIZED SHEEP

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### ABSTRACT

*We examined the relationship between thoracic duct lymph flow (TDF) and its driving pressure (DP) in six anesthetized sheep. DP was determined as the thoracic duct pressure (TDP) minus the innominate vein pressure (VP). TDF was measured using an ultrasound transit-time flow meter, placing a flow probe beside the caudal mediastinal lymph node. TDP was measured with a fine needle inserted near the flow probe. TDP increased linearly together with an increase in VP after balloon inflation in the cranial vena cava with a TDP/VP ratio of 0.79. DP decreased, therefore, with an increase in VP and this decrease in DP correlated directly with a fall in TDF. After rapid i.v. fluid infusion, TDF increased but DP varied among the six sheep. Nonetheless, after balloon inflation with expanded volume (i.e., i.v. fluid infusion), DP and TDF were positively correlated. We conclude that DP is the main factor determining TDF when VP rises in conjunction with increased lymph production.*