An 11-year-old female Hapalemur alaotrensis was evaluated following a history of dyspnea of 15 days’ duration. Thoracic radiography performed by the referring veterinarian revealed a large cardiac silhouette and dorsal deviation of the trachea. Heart sounds were muffled. Echocardiographic findings were indicative of severe pericardial effusion without cardiac tamponade. No pleural effusion was identified. A computed tomography (CT) exam confirmed the presence of severe pericardial effusion and allowed identification of a parenchymatous mediastinal lesion sited at the level of the left hemithorax. To delineate the thoracic duct, lymphoCT was also performed by injection of iodinated contrast medium in the perianal subcutaneous tissue. Pericardiocentesis yielded a considerable amount of effusion with chylous biochemical and cytological properties. A diagnosis of chylopericardium with absence of pleural effusion was made. Initially, the chylopericardium was managed conservatively with two centesis and oral treatment with prednisolone. Medical treatment did not result in complete resolution of effusion and clinical signs; therefore, subtotal pericardiectomy and thoracic duct ligation were recommended. After the second pericardiocentesis, the subject died and the pericardiectomy could not be performed. To the authors’ knowledge, this is the first report of the development of chylopericardium in a Hapalemur alaotrensis