

UNIVERZITA KARLOVA

Lékařská fakulta v Plzni

Dizertační práce

Endothelial glycocalyx – diagnostic approach and intervention assessment

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#### ABSTRACT

Endothelial glycocalyx (EG) is fine structure on the surface of endothelium. After extensive research in past years, revisited Starling principle was finally formulated. It describes fluid physiology in capillaries precisely. EG has pivotal role in keeping endothelium semipermeable and thus avoiding extensive filtration of fluids to interstitium. Assessment of EG is clinically difficult. Many pathological conditions lead to damage of EG (sepsis etc.). Intravenous fluid therapy is mainstay of treatment of such conditions. Our aim was to determine the changes of EG integrity depending on the choice of intravenous fluid and its infusion time in physiological and pathological conditions.

Key words:

Endothelial glycocalyx, infusion therapy, anaesthesia, sepsis, microcirculation.