

# **Optic Nerve Ultrasound for Fluid Status Assessment in Patients with Sepsis and Septic Shock**

*Thesis submitted by*

***Mohamed Abdullatif Ibrahim***

*M.B.B.Ch*

*Resident of critical care medicine Cairo university hospital*

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*Under supervision of:*

***Prof. Tarek Samir Elgohary***

*Professor of critical care medicine- Cairo university*

***Prof. Ayman Nehad Moharram***

*Assistant professor of critical care medicine- Cairo university*

***Dr. Ahmed Rostom Abdulmonem***

*Lecturer of critical care medicine- Cairo University*

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# Abstract

**Introduction:** Sepsis and septic shock represent a major problem among the critical patients with a lot of morbidity and mortality. The incidence of sepsis has increased all over the world because of aging western population.

**Patients and Methods:** This was a prospective interventional study involving 60 patients with sepsis and/or septic shock. Lung Ultrasound (LUS) was performed using a 2- to 4-MHz convex probe by the same trained investigators during a 10-min period, the time required for assessing the whole lung. all patients underwent transthoracic lung ultrasonography; seven zones were considered in our simplified lung ultrasound scoring method

**Results:** Our study showed that there was a statistically significant correlation between ONSD and ECS score after 24 hours. This means that the size of the ONSD after 24 hours correlates with the amount of increase in ECS score (P value 0.029 and correlation coefficient 0.282).

**Conclusion:** ONSD can be used as a tool for fluid status assessment in patients with sepsis and/or septic shock.

**Keywords:** Optic Nerve, Ultrasound, Fluid Status, Sepsis, Septic Shock