



GENERAL EXAMINATION

4.4. Edema Examination

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Definitions

- **Edema:** Excessive accumulation of fluid in the extracellular (interstitial) space. It can be generalized (systemic) or localized and can be classified as pitting or non-pitting.
- **Anasarca-type edema:** Massive, widespread, and involving third spaces, characterized by fluid accumulation.
- **Idiopathic edema:** Fluid accumulation or perception of accumulation in the face, hands, trunk, and extremities when renal, cardiac, or hepatic functions are normal.
- **Ascites:** Abnormal fluid accumulation in the peritoneal cavity (Figure 1).

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Additional Information

- After identifying the cause, treatment should be planned with a focus on the underlying condition.
- If a medication is responsible for the edema, it should be discontinued.
- Sodium restriction should be implemented to reduce fluid accumulation.
- Diuretics (loop diuretics, thiazides, mineralocorticoid receptor blockers) are the main agents used in the symptomatic treatment of edema.
- Diuretic doses and combinations that achieve a volume reduction of 1.5-2 kg per day are well-tolerated by many patients.
- During the treatment process, attention should be paid to the side effects of diuretics, fluid-electrolyte imbalances, and the development of metabolic alkalosis.
- Mechanical ultrafiltration can be used in cases resistant to medical treatment.
- Whenever possible, weight monitoring should be done every 24 hours.
- If possible, edematous extremities should be measured every 12-24 hours to assess the course and treatment response.
- Edematous extremities should be elevated using supportive materials, and the position of the edematous area should be changed every 2 hours.
- Patients should be monitored for circulation, and the area should be monitored for pressure ulcers.
- Massage should not be performed on the edematous area.
- No procedures such as blood pressure measurement, injections, intravenous perfusion, or blood sampling should be performed on the edematous extremity.

References

1. Lent-Schochet D, Jialal I. Physiology, Edema.(2023). In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing.
2. Cho S, Atwood JE. Peripheral edema. (2002). Am J Med. 113(7):580-6.
3. Jameson L, Fauci A, Kasper D, Hauser S, Longo D, Loscalzo J (Eds). Harrison's Principles of Internal Medicine. (2018). 20e. McGraw-Hill.