

Direction

- 1) The relative contribution of transcapillary water movement and lymphatic reabsorption in peritoneal dialysis (PD) is a critical issue with which type of PD complications?
 - a. Peritonitis
 - b. Exit-site infection
 - c. Tunnel infection
 - d. Ultrafiltration failure (UFF)
- 2) In terms of effective lymphatic absorption rate (ELAR) and ultrafiltration coefficient (LpA) values, which statement is true?
 - a. Both the ELAR and LpA values are higher in the high or high-average transporters compared to the low or low-average transporters.
 - b. Both the ELAR and LpA values are lower in the high or high-average transporters compared to the low or low-average transporters.
 - c. ELAR value is higher and LpA value is lower in the high or high-average transporters compared to the low or low-average transporters
 - d. For both the ELAR and LpA values, there is no difference in the high or high-average transporters compared to the low or low-average transporters.
- 3) What was the reported correlation between ELAR and LpA values in continuous ambulatory PD (CAPD) patients without UFF and duration less than 2 years from the beginning of PD?
 - a. Negative but not significant
 - b. Negative and significant
 - c. Positive but not significant
 - d. Positive and significant
- 4) Which statement on the impact of peritoneal ultrafiltration (PUF) on PD is correct?
 - a. PUF impacts PD patients' outcomes but has no effect on PD complications and outcomes.
 - b. PUF has no impact on PD patients' outcomes but strongly affects PD complications and outcomes.
 - c. PUF has no impact on either PD patients' outcomes or PD complications and outcomes.
 - d. PUF has a major effect on both PD and patients' outcomes.
- 5) Of the presumed factors affecting the natural course of peritoneal function, which factor is of the utmost importance with respect to the time-course of small solute- and fluid transport, especially the transport of solute-free water?
 - a. Peritonitis episodes
 - b. Exit-site infection episodes
 - c. Tunnel infection episodes
 - d. Type of UFF
- 6) According to some authors, what is the time-trend for the peritoneal ELAR and its association with patient or technique survival?
 - a. There is a time-trend for the peritoneal ELAR and it is associated with patient or technique survival.
 - b. There is no time-trend for the peritoneal ELAR and it is associated with patient or technique survival.
 - c. There is a time-trend for the peritoneal ELAR and it is associated with patient but not technique survival.
 - d. There is a time-trend for the peritoneal ELAR and it is associated with technique but not patient survival.
- 7) According to some authors, what is the effect of increased lymphatic absorption on UFF and its contribution to the development of UFF in long-term PD patients with well-maintained transcapillary ultrafiltration?
 - a. Increased lymphatic absorption is one of the causes of UFF but it is unlikely to contribute to its development.

- b. Increased lymphatic absorption is one of the causes of UFF and strongly contributes to its development.
 - c. Increased lymphatic absorption has no role in UFF and it is unlikely to contribute to its development.
 - d. Increased lymphatic absorption has no role in UFF but strongly contributes to its development.
- 8) Which level of lymphatic absorption rate (LAR) is suggested as the presumed cause of UFF?
- a. >2.14 mL/min
 - b. >1.14 mL/min
 - c. >3.14 mL/min
 - d. >4.14 mL/min
- 9) According to Smit and colleagues, what are the main reasons for UFF in long-term PD patients?
- a. Decreased osmotic conductance to glucose, mostly caused by a combination of peritoneal water channels dysfunction and decreased peritoneal surface area.
 - b. Increased osmotic conductance to glucose, mostly caused by a combination of peritoneal water channels dysfunction and increased peritoneal surface area.
 - c. Decreased osmotic conductance to glucose, mostly caused by a combination of peritoneal water channels dysfunction and increased peritoneal surface area.
 - d. Increased osmotic conductance to glucose, mostly caused by a combination of peritoneal water channels dysfunction and increased peritoneal surface area.
- 10) Which is the major factor in the occurrence of UFF in short-term patients?
- a. High ELAR
 - b. Aquaporin dysfunction
 - c. Number of peritonitis episodes
 - d. Number of exit-site infection episodes
- 11) Which characteristic distinguishes a patient with encapsulating peritoneal sclerosis from a patient with UFF?
- a. Constantly low ELAR
 - b. Constantly high ELAR
 - c. Constantly low LpA
 - d. Constantly high LpA
- 12) Which values are measured with "PD Adequest 2.0" software package?
- a. LpA
 - b. ELAR
 - c. Both
 - d. None of the above
- 13) How are solute transport rates assessed during a peritoneal equilibration test (PET)?
- a. Rates of their equilibration between peritoneal capillary blood and dialysate.
 - b. Speed of their equilibration between peritoneal capillary blood and dialysate.
 - c. Rates of their equilibration between peritoneal capillary blood and urine.
 - d. Speed of their equilibration between peritoneal capillary blood and urine.
- 14) PET measures which parameter and when?
- a. The ratio of solute concentrations in dialysate to plasma (D/P ratio) at different times during the dwelling of PD fluid.
 - b. The D/P ratio and only once during the dwelling of PD fluid.
 - c. The ratio of solute concentrations in plasma to dialysate (P/D ratio) at different times during the dwelling of PD fluid.
 - d. The P/D ratio only one time during the dwelling of PD fluid.
- 15) Which assumption with respect to the ELAR measurement is true?
- a. The peritoneal cavity lymphatics drain intraperitoneal fluid by bulk transport with a decrease in protein content.
 - b. The intraperitoneal macromolecules of more than 20,000 daltons molecular weight, such as albumin, are almost exclusively returned to the venous circulation by the peritoneal capillaries.

- c. Lymphatic absorption is calculated from the rate of disappearance of albumin from the peritoneal cavity.
 - d. The peritoneal cavity lymphatics drain intraperitoneal fluid by bulk transport with an increase in protein content.
- 16) Which molecule's disappearance rate is an indirect method of calculating lymphatic absorption during CAPD?
- a. Alpha-2-macroglobulin
 - b. Beta-1-microglobulin
 - c. Immunoglobulin G (IgG)
 - d. Albumin
- 17) Approximately what proportion of the patients were high or high-average in our study?
- a. More than half
 - b. Less than half
 - c. More than one third
 - d. Less than one third
- 18) The volume of 24-hour ultrafiltration is greater in which group of PD transporters?
- a. High or high-average transporters
 - b. Low or low-average transporters
 - c. Medium transporters
 - d. There is no difference regarding the volume of 24-hour ultrafiltration among the different groups.
- 19) Patients with three or more peritonitis episodes had which peritoneal membrane characteristics in comparison to peritonitis-free patients?
- a. Increased ultrafiltration and increased small solute transport
 - b. Decreased ultrafiltration and increased small solute transport
 - c. Decreased ultrafiltration and decreased small solute transport
 - d. Increased ultrafiltration and decreased small solute transport
- 20) Through its effect on the capillary endothelium, which substance can affect lymphatic flow in PD?
- a. Nitrite oxide (NO)
 - b. Adenosine
 - c. Potassium (K⁺)
 - d. Acetylcholine