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Parentral nutrition

Ankush Bansal
Batra Hospital, India

Abstract

Parentral nutrition supplies all nutrients without use of intestinal tract and is indicated in patients who cannot tolerate or eat enteral feeds. Parentral nutrition is indicated in severe malabsorption of nutrients as in cases of massive small bowel resection and in cases of complete bowel obstruction, masive gi bleeding and gi fistulas. Parentral nutrition is contraindicated in functional gi tract. It can be given by central venous access in which the the expected length of therapy is long. Peripheral venous access is used when the therapy is to be short. Total parentral nutrition is a combination of amino acids, glucose and lipid solutions which can be given for a indefinite period. Subclavian vein is ideally the best access used and internal jugular vein is the next best and femoral vein is avoided. The main drawback of parentral nutrition is mechanical, catheter related, infectious and metabolic complications. Parentral nutrition is delivered either through multiple bottles or all in one system. A typical parentral nutrition solution is six times more concentrated than blood and consists of approximately 30 to 50 gram of protein and 1000 to 1200 calories/L. A typical sample consists of amino acids-55g/l, dextrose-555 kcal/l and lipids-400 kcal/l. In clinical practice a mixture of glucose and long chain fatty acids is given in a ratio of 60 to 70% glucose to 30 to 40 % of fat as non protein calories. This glucose-lipid system has many advantages as it keeps the osmolarity low and the respiratory stress and metabolic stress is low as well as the risk of fluid overload. Monitoring of blood glucose, serum electrolytes and serum creatinine and BUN daily is needed. Some standard instructions for parentral nutrition are-infuse only through a new catheter, check vital signs 2 hrly, check X-ray chest before starting nutrition, total asepsis to be maintained, monitor intake-output chart and daily dressing of puncture site. Nutritional support may need expert adjustments in specific conditions in critically ill patients and the common complication where nutritional modification is required is renal failure.

Biography

Ankush Bansal has completed MBBS at age of 24 years from Manipal University and done post doctoral studies in medicine also from Manipal University. Presently he is working in Batra Hospital New Delhi as a Gastroenterologist. He has presented in various conferences and has publications in international journals.