



DEPARTMENT OF FOOD AND NUTRITION

TTWRDC (W) MAHABUBABAD-506101

STUDENT'S STUDY PROJECT



Topic: Diet plan for Hepatitis.

Academic Year: 2022-23

Undertaken by J. Kalyani

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PROJECT WORK

FOOD AND
NUTRITION

Title of project :- Diet plan for hepatitis

subject :- Food & Nutrition

Project head :- J. Kalyani

Department :- J. Kalyani


Head of the department :- J. Kalyani

Number of team :- 5

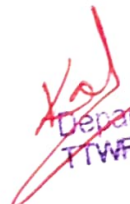
Number of the project :- Diet plan for hepatitis

class :- III FNZC

Name of the team :- Hepatitis

Signature of the lecturer :- 

Signature of the head
of department :-


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Hepatitis

Introduction

Hepatitis may occur due to reaction with drugs toxic agents and various viruses. The most common form of hepatitis is that caused by faecal contamination of food and water with type A virus, serum hepatitis, Type B is the most frequently occurred form.

SYMPTOMS

Mild constant abdominal pain, malaise easy fatigability, upper respiratory systems, anorexic, nausea, frequently episodes of vomiting along with diarrhoea or constipation may occur during the initial stages. Jaundice occurs in 5-10 days and there is worsening of the above mentioned symptoms. In the convalescent phase increase sense of well being, return of appetite along with reduction in the severity of jaundice abdominal pain tenderness of liver and fatigability is experienced.

While the above mentioned may subside in 2-8 weeks. Complete recovery take a long-time majority of the symptoms associated with the form. Jaundice adversely affect food intake for the patient may also experience low grade fever these.

There by increase nutritional demands on the body. Efficient treatment and management of hepatitis is most to prevent its progression towards cirrhosis/hepatitis encephalopathy etc... Let us then study about the treatment of Hepatitis.

Treatment

Dietary management to maintain a good nutritional status.

rest on avoidance of strenuous physical activity
(if required (non-metabolism))
avoidance of hepatotoxic agents particularly alcohol.
Let us focus on the dietary management of hepatitis

Dietary Management of Hepatitis

Respective of the cause of hepatitis regeneration of the liver cells is essential to promote recovery and hence proper functioning of the organ. Relapse of hepatitis or progression of acute hepatitis to chronic forms. Cachexia is common in many at times due to impaired nutritional status. Being a store house for several nutrients (vitamins & minerals) the nutritional reserve may get depleted during hepatitis. The major objectives of dietary management include.

- promote a positive energy and nitrogen balance
- promote recovery and prevent progression of the disease.
- replenish the depleted reserves and ensure satisfactory convalescence and maintain an optimum nutritional status.

We will now discuss the nutrient modifications necessary to promote quick recovery and prevent further degeneration of hepatic cells. Let us start with the caloric requirement.

Energy: Majority of the patients experience weight loss and are malnourished due to reduced food intake. Low grade fever is generally present during viral hepatitis which also imposes increased demands for calories due to an increased basal metabolic rate. Adequate energy intake is essential to ensure proper utilization of protein, the energy requirements may increase by 15-30% depending up the existing nutritional status. However, the energy intake should be increased gradually. An aggressive increase in energy may result in aggravating gastrointestinal disturbance due to

availability of jaundice during the early stages it may not be possible to provide more than 1200 kcal per day.

However during the convalescence phase, adequate intake of energy is feasible and a must to ensure complete recovery, if the patient is grossly underweight the energy intake may be calculated 3.5 kcal/kg IBW to ensure weight gain and replenishment of glycogen.

Protein - The protein intake should be increased by 50% in mild and moderate cases of hepatitis. i.e., patient could be given 1.5 - 2.0 gm protein per kg IBW the protein intake should not exceed 1.0 kg/kg IBW/day i.e., the protein could be provided as per the RDI

Fat - Fat should not be severely restricted as they can make the food unpalatable. About 20% of the total calories could be from fat. MCTs are preferred as they are easily digestible and assimilable. (40-50g) For example, dairy fat cream and butter are preferable.

Carbohydrates - In mild and moderate case of hepatitis, carbohydrates should provide at least 60% of the total energy. Total intake of carbohydrates help in replenishing the glycogen. However, in severe chronic hepatitis determining the carbohydrate needs is often a challenge because liver failure reduces glucose production, glucose utilization and there is preference for the use of lipids and proteins as alternative sources of protein. In such situations the carbohydrate intake should not exceed 60% of the total energy. Emphasis should be laid on the inclusion of foods rich in monosaccharides, disaccharides and starches. Dietary fibre intake should be kept minimum. All fibre rich food should preferably be avoided and if given should be in a cooked form. Thus include good amounts of glucose, fructose, jaggery, honey, sugars, agave, refined flour, starch, storage roots and tubers (potato, yam, colocasia etc)

high carbohydrate fruits (banana, mango, sapota, raisins etc)

Minerals :-

Impaired liver function and its associated symptoms can result in increased demand of B-group vitamins, ascorbic acid, vitamin-A, calcium and iron. Among all the nutrients malabsorption is the greatest; therefore β -carotene foods should be included in the diet. Included adequate amount of fresh fruits and vegetables. In soft cooked forms such as mashed pureed vegetables, vegetable soups, fruit juice, seed fruit, fruit jellies, fruit jam, milk shakes etc.

Fluids :-

Fluid intake should may need to be increased, if the patient is suffering from diarrhoea and/or constipation. In the both cases include good amounts of clear and full fluid in the diet such as:

Clear Fluids :- coconut water, tea or coffee (without milk), jelly water, strained vegetable/pulses/meat soups, strained juices, strained carrot/rice kanji etc.

Full Fluids :- Milk based beverages such as tea coffee, milk, shakes, souffle, baked custard, soup, juice, egg nog, fruit pies etc.

General consideration

Other consideration include :-

High energy, high protein diet should be given to patients suffering from mild to moderate hepatitis
during acute hepatitis or if vomiting/diarrhoea is severe, a full fluid or a semisoft diet may need to be given
small frequent easy to digest bland meals should be offered to the patients. The meals should particularly be mechanically and chemically bland

Nutrients	RDA	modified
energy kcal	2110 kcal	1000 kcal
protein	5400 g	60-80 g
fat	20 g	30 g

Timings	Food item	Ingredients	Portion size	Energy kcal	Protein g	fat g
Early Morning	Skim milk	sugar	100 ml	68 kcal	10.40 g	0.19 g
			10 g	35.40 kcal	0.185 g	4.01 g
			Total:-			
Break Fast	Pindi Tandoori Masala	Jallirava Tomato (pin)	50 g	16.1 kcal	10.7 g	4.9 g
			20 g	10.8 kcal	0.150 g	0.05 g
			Total:-			
Mid Morning	Avocado Juice	Avocado sugar	60 g	86.6 kcal	1.77 g	5.31 g
			10 g	30.4 kcal	0.185 g	4.01 g
			Total:-			
Lunch	soft chapathi potato	wheat flour potato	40 g	128.2 kcal	8.22 g	0.612 g
			20 g	17.46 kcal	0.385 g	0.057 g
			Total:-			
Evening	cereal porridge	Rawa wheat Rice Banana	15 g	48.33 kcal	1.88 g	0.220 g
			15 g	22.72 kcal	1.17 g	0.825 g
			10 g	31.6 kcal	1.4 g	0.13 g
Total:-						

Bed Time	Skin milk	Skin milk sugar	Rinner			Rinner		
			rice and vegetable cornfl	rice cornfl potato tomato Greenpens	50g 10g 10g 20g 10g	178.54 kcal 7.325 kcal 6.988 kcal 15.8 kcal 6.133 kcal	0.94g 0.09g 0.154g 0.152g 0.525g	0.26g 0.04g 0.032g 0.06g 0.013g
			TOTAL:-					
	100 ml	10 gms	68 kcal	15.4g	0.19g			
	10 gms	35.4 kcal	0.75g	4.016g				
	TOTAL:-							
	Grind total	1000.7 kcal	67.528g	2700.975				
	Modified RDD	1000 kcal	60.10g	30g				

*Verified by
KJ*