

NEPHROTIC SYNDROME



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DEFINITION

- Nephrotic syndrome is a primary glomerular disease characterized by proteinuria, edema and hypoalbuminemia, hyperlipidemia. Because of gross proteinuria serum albumin is low ($<2.5\text{g/dl}$).

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ETIOLOGY

- 1. Primary renal cause**
 - **Minimal change nephropathy**
 - **Glomerulosclerosis**
 - **Acute post streptococcal glomerulonephritis**
 - **Immune complex glomerulonephritis.**

ETIOLOGY

2. **Systemic cause**
 - **Infections**
 - **Toxins – mercury, bismuth, gold**
 - **Cardiovascular –renal vein thrombosis, congestive heart failure**

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CLINICAL MANIFESTATION

- **Four main symptoms of nephrotic symptoms:-**
- **Protein urea**
- **Hypoalbuminemia**
- **Hyperlipidemia**
- **Edema**

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Course Code : BSCN2003

Course Name: MEDICAL SURGICAL NURSING

- **SOB (Shortness of breath)**
- **Mild headache**
- **Fever, rash, joint pain**
- **Weakness**
- **Malaise**
- **Anorexia**
- **Weight gain**

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Program Name: B.Sc. Nursing

DIAGNOSIS

- **PALPATION:** Due to edema and ascites kidney cannot be palpable.
- **Urine analysis** Haematuria
- 24 hour urinary total protein estimation – urine sample shows proteinuria (>3.5 g per liter per 24 hours)
- **Blood test** BUN
- Lipid profile shows high level of S. cholesterol- 200mg.

- **hypoalbuminemia, albumin level is**
 - **<2.5g/dl**
- **Needle biopsy of kidney**
- **KUB – X.ray**
- **Renal ultrasound**
- **Renal scan**
- **Intravenous urogram (IVU).**



MANAGEMENT

• **MEDICAL MANAGEMENT:**

- **The goal of medical management is reduction of protein excretion.**
- **If causative agent is streptococcal then treated with penicillin antibiotics.**
- **Prednisolone is the drug of choice.**
- **Daily dose of 2mg/kg/day orally in divided doses for 6 weeks is given,**
- **Thereafter 1.5 mg/kg as single dose on alternate days for 6 weeks, after which treatment is discontinued.**

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- **Proteinuria disappears within the first week of therapy and negative dipstick test for 2 consecutive days shows positive response to treatment.**
- **Frequent relapses are treated by corticosteroids or antineoplastic agents such as cyclophosphamide (2 mg/kg daily for 12 weeks), cyclosporine**
- **Diuretic and salt poor albumin may be indicated in presence of severe edema.**
- **Frusamide (1-44 mg/kg/day in 2 divided doses) may be prescribed.**

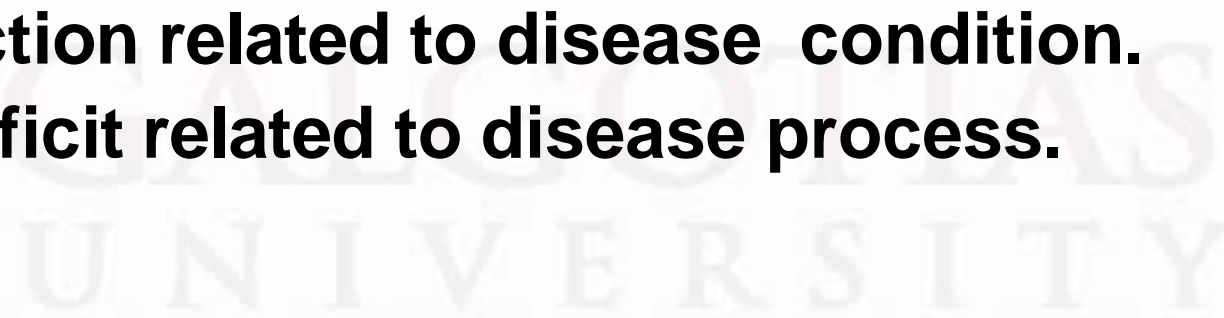
DIETARY MANAGEMENT

- Children should take a well-balanced diet rich in protein. Sodium is restricted when marked edema is present.
- Provide high carbohydrates diet to patient.
- If disease in advance stage then avoid protein intake because it is affected to kidney.
- Water restriction may be indicated if decreasing salt intake does not control edema.

NURSING MANAGEMENT

□ NURSING DIAGNOSIS:

- Risk for infection related to immunosuppressive drugs.
- Fluid and electrolyte imbalanced related to edema.
- Impaired skin integrity related to disease process.
- Altered nutrition related to Anorexia.
- Altered kidney function related to disease condition.
- Knowledge deficit related to disease process.



Care during hospitalization:

- **Child is hospitalized from initial therapy. Patient may not understand importance of hospitalization because initially the child is symptomless. During hospitalization parents should be involved in child care and goal setting.**
- **Nurses should regularly monitor the vital signs and check the Childs daily weight.**

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