NURSING MANAGEMENT OF PATIENT WITH HEMORRHAGIC CYSTITIS POST BMT
Dela Cruz, B.P. MD Anderson Cancer Center, Houston, TX

Hemorrhagic cystitis is a syndrome of hematuria with symptoms of urinary tract irritability indicated by dysuria, frequency and urgency. Incidence varies according to conditioning regimen, preventive measures employed, and graft versus host disease prophylaxis used. There are two types of occurrences: 1. Early onset happens during or shortly after the conditioning regimen in which patients may have received cyclophosphamide, ifosfamide or busulfan. 2. Late onset occurs weeks to months after bone marrow transplant related to contraction of certain viruses.

BMT patient who are immunocompromised, viruses are reactivated and excreted in the urine. In general viral shedding occurs 2-8 weeks after BMT and resolves spontaneously within three weeks. Another risk factor that contributes to hemorrhagic cystitis is GVHD. The bladder epithelium is a target organ for GVHD to attack and immunosuppressed patients already having associated complications with GVHD have an increased risk for acquiring viral infections.

Standard treatment modalities of hemorrhagic cystitis are: 1. Hydrating patients with intravenous and oral fluids. 2. Continuous bladder irrigation. 3. Bladder Instillation with Alum, Carboprost, silver nitrate, phenol, prostaglandin, and hydrocortisone. 4. Giving smooth muscle relaxants for bladder spasms. 5. Antiviral therapy. 6. Cystoscopy. 7. Our center is studying NOVO-seven injections to help with the clotting mechanism.

The nurses have an essential role in early detection. Mnemonics that would assist nurses in patient assessment is “U PAAS BL.” U-urinary output, P-pain management, A-assessment of urine, S-specimen collection for urine cytology, B-blood counts and F-infusion of blood products as necessary.

Chemotherapy and viruses may account for a substantial proportion of late onset and long lasting hemorrhagic cystitis in BMT patients. In conclusion, nursing plays a huge role in prevention, early detection and treatment of hemorrhagic cystitis.