BIRZEIT UNIVERSITY

CRITICAL CARE NURSING 2

CASE STUDY 1

STUDENT NAME: Adnan Abu Arqoub

STUDENT NUMBER : 1182551

INSTRUCTER NAME : Fadi Assi

DATE :8th April 2021

**Pt Initials :** TK

**Age :** 69 years

**Sex:** Male

**Hospital**  Ramallah’s Medical Complex **Ward:** ICU **Bed number** 5 **Date of Admission :** 21st march 2021

**Chief Complaints** patient presented to the ER with family due to sever headache and changes in vision

**History of Present Illness** -

**Past Medical History :** patient is known to have many hemorrhagic CVA, and had kidney stones

**Past Surgical History :** Cholycystectomy

**Nutritional History:** Patient was on a regular diet no special alteration

**Allergies:** NO KNOWN DRUG ALLRGY

**Personal Habits (life style)** : couldn’t be attained due to the unconsciousness of the patient and the lack of family presence

**Physical Assessment:**

**Vital Signs**

**T :** 37.1 **HR :** 98 BPM **SPO2** : 92% **BP** : 133/107 mmhg

**Head and Face :** symmetrical face no deviation in any features

**Eyes :** both pupils are pinpoint

**Ears :** Normal no ear infection

**Nose :** Normal no leaky fluid,

**Mouth and Throat :** No mouth deviation

**Neck and shoulders :** could not be attained as the patient is unconscious

**Lungs and Thorax and Breast :** Normal breathing no abnormal sounds

**Cardiocirculatory System :** patient is slightly hypertensive , no cyanosis which indicates good perfusion, normal heart rate, no murmurs or any abnormal sounds found

**Abdomen and Gastrointestinal system :** Symmetrically distended , soft lax , no masses

**Arms and Hands :** no edema , right arm weakness

**Legs and feet :** no edema, right leg weakness

**Genitourinary :** normal findings in genitals area , normal urination

**Neurological system :** Reduced tone and power on the right side, Normal reflexes, Pt is disoriented, Aphasic, Glasco coma scale 7/15

**Diagnostic Procedures:**

1. **Radiology (x-rays, CT scan, MRI, ultrasound…….etc), ECG.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Date/Time** | **Result** | **Rational if Abnormal** | **Treatment** |
| Brain C.T | 22nd March 2021 | Sing of intraventricular hemorrhage | Intraventricular space is usually filled with the CSF and no blood should be present | EVD was installed |
| Chest X.ray | 22nd March 2021 | Clear | --------------------------- | -------------------------------- |

**3. Laboratory Data:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test** | **Date** | **Patient’s Value** | **Normal Value** | **Interpretation/Reason for abnormality** | **Treatment done for abnormal findings** |
| **CBC Hemoglobin** | 27th march | 12.2 | 13.5-17 | Could be due to the intraventricular bleeding | ---------------- |
| **CBC Hematocrit** | 27th march | 36.9 | 43.5-53.7 | Patient is dehydrated | N/S 0.9% started at rate of 100cc/h |
| **CBC WBC** | 27th match | 14.5 | 4.6-11 | Probable infection | ----------------- |
| **CBC RBC** | 27th match | 4.22 | 4.69-6.13 | Low RBC could be from the IVH | ------------------ |
| **Random Blood Sugar** | 27th march | 123 | 75-110 | --------------------------- | ----------------------- |
| **Platelet count** | 26th march | 365 | 150-450 | ---------------------------- | -------------------------- |
| **Blood urea nitrogen** | 25th march | 22.1 | 8-23 | ----------------------------- | ------------------------- |

1. **Pathophysiology**

Intraventricular hemorrhage is largely due to intrinsic fragility of germinal matrix vasculature and to the fluctuation in the cerebral blood flow. Germinal matrix exhibits rapid angiogenesis orchestrating formation of immature vessels. The angiogenic vessels lack pericytes, display immature basal lamina low in fibronectin, and have astrocyte end-feet coverage deficient in glial fibrillary acidic protein. These factors contribute to the fragility of the germinal matrix vasculature.

**Medications:**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Number** | **Generic Name** | **Trade Name** | **Dose** | **Route** | **Rationale** | **Action** | **Contra- Indications** | **Side Effects** | **Nursing Consideration** |
| 1 | FUSIDIC ACID | Fucidin | 15g | Topical skin | to treat skin infections | Acts as a bacterial protein synthesis inhibitor | Sensitivity to fusidic acid and its salts | Mild skin irritation, if applied on ulcers could cause pain | \*Clean site with soap before application  \*Make sure that the wound is indeed infected |
| 2 | Pantoprazole | Pantovir | 40mg | Iv | Treatment for acid regurgitation | Proton pump inhibitor | Allergy  If patient is on other drug called rilpivirine | \*Headache  \*Vomiting  \*Bloating  \*Dry mouth | Notify the physician if allergy sings appear |
| 3 | Phenytoin | epanutin | 100mg | Iv | To stop the seizures | causing voltage-dependent block of voltage gated sodium channels. This blocks sustained high frequency repetitive firing of action potentials | Heart and livier disease , diabetes, Vit D deficiency | Constipation  Tremor  Skin rashes | monitor patients cardiac rhythm and BP |
| 4 | Cefazolin | Ancef | 1g | Iv | To treat infections | inhibits cell wall biosynthesis by binding penicillin-binding proteins which stops peptidoglycan synthesis | hypersensitivity reactions | Gas , vomiting , diarrhea , white patches on mouthg | Watchfor seizures |

**Nursing care Plan**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Nursing DX.** | **Planning/Goals**  **Expected outcome** | **Nursing Action** | **Rationale** | **Evaluation** |
| Risk for infection related to invasive procedure of EVD | Patient will remain free of infection evidenced by absence of S&S of infection | Assess site for inflammatory process, temperature elevation, increased WBC, characteristics of drainage on dressings | Provides data indicating presence or potential for infection which affects shunt function. | ------------------- |
| Impaired physical mobility | To maintain / increase strength and function of the right side | Change positions at least every 2 hr (supine, side lying) and possibly more often if placed on affected side | Reduces risk of tissue injury. Affected side has poorer circulation and reduced sensation and is more predisposed to skin breakdown. | --------------------- |
| Impaired verbal communication related to impaired cerebral circulation | To use simple words to communicate | Have patient produce simple sounds (“Dog,” “meow,” “Shh”). | Identifies dysarthria, because motor components of speech (tongue, lip movement, breath control) can affect articulation and may or may not be accompanied by expressive aphasia | -------------- |

**Discharge plan**

Teach the patient to watch out for high BP and high cholesterol and smocking, these are risk factors for a CVA (intraventricular bleeding), doing daily activities to help regain strength in the affected side, patient should also assess the temperature of things ( water while showering , cups etc) by the unaffected parts of the body to avoid burns, patient should also be taught to dress while sitting starting by dressing the affected side first, patient should be adhesive to the medications and not miss any doses, and follow the diet that physician suggested.

**Reflection**

This case taught me about the type of drainage used for the intraventricular hemorrhage and how to use it and how to read each data and how to interpretate these data.

**REFERENCES**

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AVICENA System

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