**Identifying Data:**

Full Name: D.G.

Sex: Female

DOB: XX/XX/1970

Race/Nationality: Hispanic

Primary Language: Spanish

Address: Queens, NY

Date & Time: 12:30PM 02/08/22

Location: NYPQ

Source of Information: EMS, daughter, & medical records

Reliability: reliable

Source of Referral: N/A

**Chief Complaint:** Pt found unresponsive by niece at 12:00PM

**HPI:**

DG, 53 y/o female, with PMHx of diet-controlled DM2 presents to ED unresponsive with a GCS of 4 and BP 201/78mmHg. Pt was last seen well by daughter at 7:30am. Daughter was the primary historian and reports pt had a new onset headache for the past 2 days. Pt noted to have fixed 8mm dilated pupils on arrival with extensor posturing and was subsequently emergently given paralytics and intubated given the inability to protect her airway. Pt subsequently underwent CT imaging which showed a large intraparenchymal hemorrhage in the left cerebral hemisphere, extensive left hemispheric SAH, left frontal convexity SDH and subfalcine herniation. A right radial A-line and right femoral triple lumen catheter were placed under stile technique. Nicardipine gtt administered to maintain SBP < 140mmHg. Neurosurgery consulted with decision of no acute intervention given extent of IPH & edema leading to midline shift. Pt will be admitted to MICU for management of ICH.

SH: At baseline the patient is A&O x3, ambulates without assistance, full functional, and works as a babysitter in Ecuador.

\*\*\* 53 yo female PMH DM, presented with unresponsive found by niece at 12pm. Last seen well by daughter at 7:30am… she was doing??? Per daughter, patient had reported headache for past 2 days (what happens those 2 days, - self medicate, associated symptoms, alleviating or worsening sx’s) pertinent negative as noted. “daughter did not notice any?...” what was noted or spoke with daughter…

In ED pt was assessed GCS of 4, …intubated….

..all other work up goes into objective data…. then plan….

**Past Medical History:**

* Diabetes Mellitus Type 2 (diet controlled)

*Immunizations*

* Immunization status unknown - noted any covid, flu, vaccine, booster etc
* other screening info: can say limited info from daughter

screening:

pap

mammo

colonoscopy

**Past Surgical History:**

* No known past surgical history

**Current Medications:**

* No reported medications

OTC and herbs

*Hospital medications*

* Chlorhexidine 0.12% solution 15mL PRN
* Etomidate 2mg/mL injection 20mg
* Propofol infusion 10mg/mL titratable
* Rocuronium injection 70mg

**Family History:**

* No reported FMHx of aneurysm, cancer, stroke…
* Children – Daughter, living & healthy (age)

community physician -

**Social History:**

* Habits – Occasional alcohol use. Never smoker. No reported illicit drug use
* Travel – Denies recent travel. Last went to Ecuador 6 months prior. Pt currently visiting U.S. on a 6 month visa.
* Occupation – unknown (from daughter???)
* Marital History – Married, monogamous with male partner. (is that spouse of in ecuador)
* Diet – American / Latin diet
* Sleep – habits unknown (notably sleeps through night?)
* Exercise – No reported exercise regimen but previously able to walk without restriction or difficulty
* Sexual History – Sexually active with men, in monogamous relationship

ADL

homecare services

**Review of Systems:**

* General
	+ Denies generalized weakness/fatigue, weight loss, loss of appetite**,** fever/chills/night sweats
* Skin, hair, nails
	+ Denies rash, pruritis, excessive sweating, pigmentations, moles, change in hair distribution.
* Head
	+ Denies headache, vertigo, or new head trauma
* Eyes
	+ Denies visual disturbances or photophobia.
* Ears
	+ Denies, pain, discharge, tinnitus, hearing loss, hearing aids, or feeling of fullness
* Nose/Sinuses
	+ Denies epistaxis, congestion, or discharge
* Mouth and Throat
	+ Denies bleeding gums, sore tongue/throat, mouth ulcers, voice changes, or dentures. Last dental exam unknown
* Neck
	+ Denies swelling/lumps, stiffness, or decreased ROM
* Pulmonary System
	+ Denies dyspnea, cough, wheezing, hemoptysis, cyanosis, orthopnea, or PND
* Cardiovascular System
	+ Denies chest pain, known murmur, HTN, palpitations, irregular heartbeat, or syncope
* Gastrointestinal System
	+ Denies decreased appetite, intolerance to specific foods, N/V, & constipation, mild abdominal pain,diarrhea, dysphagia, pyrosis, flatulence, jaundice, changes in bowel habits, hemorrhoids, rectal bleeding/blood in stool.
* Genitourinary System
	+ Denies incontinence, changes in frequency, nocturia, oliguria, polyuria, abnormal color of urine, flank plain, or dysuria
	+ Sexual History – refer to Social Hx
* Nervous System
	+ Denies generalized weakness, loss of strength, changes in cognition/mental status/memory, seizures, headache, loss of consciousness, & ataxia
* Musculoskeletal System
	+ Denies deformity, swelling, redness, pain
* Peripheral Vascular System
	+ Denies intermittent claudication, coldness/trophic changes, varicose, or color change
* Hematologic System
	+ No Hx of DVT/PE, anemia, or lymph node enlargement
* Endocrine System
	+ Denies polyuria/polydipsia/polyphagia, heat/cold intolerance, goiter, excessive sweating, or hirsutism
* Psychiatric
	+ Denies Hx of anxiety/depression, or obsessive/compulsive disorder. Never seen a mental health professional.

**PHYSICAL EXAM**

Vital Signs:

BP: 201/78mmHg – lying & supine, L arm RR: 18 breaths/min, irregular

Pulse: 57 bpm, irregular - this is noted to be on exam T: 96.08F (rectal) O2 SAT: 87% on nasal cannula (how much O2)

 Height: 5’5 inches Weight: 257 lbs BMI: 42.80 kg/m2

General Appearance: unresponsive to sternal rub and stimuli, abnormal respirations. Not diaphoretic. Appears reported age and well groomed. Obese body habitus.

Head: normocephalic, atraumatic.

Eyes: **Pupils fixed 8mm dilated bilaterally – nonreactive to light or stimuli. Absent oculocephalic reflex.** No strabismus/exophthalmos/ptosis. Sclera white, cornea clear, conjunctiva pink. No erythema of lacrimal sack.

Ear: Appropriate in size. No lesions/masses/trauma visualized on external ear.

Nose: Symmetrical, no external masses/lesions/deformities/trauma/discharge.

Mouth & Throat:

Lips: Pink and moist. No cyanosis, lesions, or ulcerations

Oral Mucosa: Pink &Moist. No masses/lesions noted. No leukoplakia.

Palate: Pink. No visible lesions/masses/scars.

Teeth: Teeth intact, no visible dental caries. All teeth have appropriate shape.

Gingivae: No hypertrophy or recession. Unremarkable

Tongue: pink, well papillated. Frenulum intact. No masses/lesions/deviation.

Oropharynx: Hydrated, no exudate/masses/lesions/erythema/postnasal drip/foreign bodies noted. Grade 1 tonsils. Uvula pink, midline with no lesions or edema.

Neck: Trachea midline. No masses/lesions/pulsations noted. No stridor noted. No cervical adenopathy. No carotid pulses/thrills/bruits heard on auscultation.

Cardiovascular: PMI located at the 5th ICS in midclavicular line. Carotid pulses are 2+ bilaterally without bruits. **Bradycardic**, regular rhythm. No murmurs. Normal S1 & S2. No splitting of S2 or friction rubs appreciated.

Chest: Symmetrical with no deformities or trauma. **Respirations irregular and labored – pattern of increased respirations followed by decreased respirations and apnea.** Lat/AP diameter 2:1.

Lungs: Clear to auscultation with no rales/rhonchi/wheezing present. **Increased** and symmetrical chest expansion and diaphragmatic excursion.

Abdomen: Abdomen symmetric and nondistended**. Striae present.** No scars or pulsations noted. Bowel sounds are normoactive in all 4 quadrants. No aortic/renal/iliac/femoral bruits heard.

Skin: Warm and moist. Non-icteric. No tattoos noted. No visible moles.

Hair: Average quantity and distribution. No seborrhea/lice/dandruff noted

Nails: Capillary refill <2 seconds in bilateral upper and left lower extremities. Appropriate color, shape, and thickness.

Musculoskeletal: No erythema / ecchymosis / atrophy or deformities in bilateral upper and lower extremities.

Peripheral Vascular: Warm to touch bilaterally. 2+ pulses throughout. No edema or ulcerations. Calves equal in circumference. No palpable cords bilaterally. No palpable epitrochlear adenopathy.

Neurological: **Unresponsive, unable to follow commands.** **GCS 4 – no eye opening, no verbal response, extensor response with decerebrate posturing on upper and lower extremities. No corneal reflex or gag reflex. No motor response to noxious stimuli. Bilateral fixed 8mm pupils, absent oculocephalic reflex. Positive Babinski bilaterally, diminished response on the right. Sensory, coordination, and gait deferred.**

Genitourinary: No abnormal vaginal discharge, lesions, or ulcerations noted. External genitalia intact without deformities. No inguinal adenopathy. Urethra intact and no blood was noted.

**Labs:**

Completed 2/08/22

**VBG:** **pH 7.31 (L)** PCO2 44 **PO2 54(H)** HCO3 22.5 Total CO2 24

**Base excess -3.8(L)** **O2 Sat 84% (L)**  Na 141 K 3.8 Cl 104

**Lactate 7.73 mmol/L (H)** Creatinine (failed) Hct 47 Hgb 16.1

**Glucose 299(H)**

**POC Glucose: 305 mg/dL (High)**

**HgbA1c: 7.5%(H)**

**Stroke panel: aPTT 24.7(L)** PTT 11.4 INR 0.99 **Troponin-T 0.043(H)** GFR >90

**CBC: WBC 22.46(H)** Hgb 12.8 g/dL Crit 40.1 Plt 342 x 10^9/L

Neutrophils 82.0 Lymph 9.7 Monophils 6.4 Eosinophils 0.00 RDW 13.6%

RBC 4.89 million/mm3

**BMP:** Na 140 K 4.1 Cl 98 **CO2 19 (L)** BUN 7.3 **Cr 0.43 (L) Glucose 295** Calcium 8.8 Mg (failed) Phos (failed) CaION (failed) **Anion 24(H)**

**Hepatic Panal:** **SGOT 65(H) SGPT 58(H)** Protein 8.2 Alb 4.7 Globulin 3.5

Bili total 0.3 bili direct 0.1 bili indirect 0.2 **AST 65(H) ALT 58(H)** Alk Phos 101

**T&S:** O, positive Rh

**Sars-Cov-2:** Negative

**Imaging Findings:**

Completed 2/08/22

*Brain non-contrast CT:* Large intraparenchymal hematoma in the left cerebral hemisphere and extensive left hemispheric subarachnoid hemorrhage and thin left frontal convexity subdural hematoma. Blood noted in the lateral third and 4th ventricles. Large amount of edema surrounds the dominant hemorrhage resulting in significant mass effect which causes rightward midline shift of approximately 1.5cm consistent with subfalcicine herniation. Complete effacement of the basal cisterns with transtentorial hernation.

*Brain CTA:* 1.4 x 0.5cm saccular aneurysm at left supraclinoid internal carotid cartery. No significant stenosis of intracranial arterial vasculature.

*CXR:*

Cardiomediastinal silhouette - indeterminant due to AP technique

Lung/Airway/Pleura/Linear Opacities – The lung bases are suggestive of subsegmental atelectasis with no dense lobular consolidation, pleural effusion, or pneumothorax

Bones - WNL for age

Soft tissue - unremarkable

Impression - There is an Endotracheal tube low in position with the tip at the ostium of the right mainstem bronchus. The tube should be retracted.

**EKG Findings:**

Ventricular rate 58

Atrial rate 57

PR interval 156 ms

QRS 105 ms

QT internal 482 ms

QTC interval 474 ms

P axis 11 degrees

Impression: Sinus arrythmia, abnormal 12 wave progression with nonspecific T wave abnormalities in anterior leads

**Central line:**

Confirmation of wire (L arm) via ultrasound of venous placement. Assessment of blood return through all ports and CXR ordered

**Intubation:**

Pretreatment: Fentanyl 100mcg IV

Paralytic: Rocuronium 70mg IV

Intubation method: oral (video assisted)

CXR verification

**Differential Diagnosis:**

1. IPH w/ subfalcine hernation
	1. Cushing’s triad present
	2. Confirmed with CT/CTA
	3. Dx: Intraparenchymal and subarachnoid hemorrhage with subfalcine and transtentorial herniation secondary to ruptured aneurysm of posterior cerebral artery
2. Brainstem lesion
	1. Ruled out by CT/CTA
3. Metabolic coma
	1. Although pt had PMHx of DM2 & hyperglycemia (305 mg/dL) the physical exam was negative for tremor, asterixis, or myoclonus. Pt also had decerebrate posturing and fixed pupils which is more common with ICH. Metabolic coma typically has pupils that constrict with light.
4. Toxic Syndromes
	1. No known drug use or accidental exposures. Presentation unlikely for toxic syndromes. CT/CTA confirmed ICH w/ ruptured aneurysm.

**Assessment:**

DG, 53 y/o female, with no reported PMHx presents to ED unresponsive with GCS of 4, fixed dilated pupils, and Cushing’s triad. Last seen well by daughter 5 hours prior and reported new onset headache for past 2 days. Pt emergently given paralytic and intubated. Brain CT & CTA showed intraparenchymal and subarachnoid hemorrhage with subfalcine and transtentorial herniation secondary to ruptured saccular aneurysm of ICA.

53 yo F presented with unresponsiveness found to have ruptured ICA aneurysm with evidence of ICH and SAH with subfalcine and transtentorial herniation currently intubated.

**Plan:**

* Intracranial hemorrhage w/ herniation
	+ Emergent Neurosurgical consult
		- 2/8/22 01:00PM - Neurosurgical team determined pt is not candidate for acute neurosurgical intervention
		- Give Mannitol 1g/kg & head of bed to 30 degrees to assess for pupillary change.
			* 2/9/22 – S/P mannitol, no change in pupils. Proceed to brain death protocol.
	+ Admit to Neuro ICU
		- Nursing:
			* Placement of foley catheter
			* Nutrition: NPO. No enteral or parental nutrition indicated at this time
			* Monitor daily I&O & wt
			* Place patient on continuous monitoring
			* Vital signs & neuro check 30 mins q6h, then every hour thereafter
			* Oral care Q2h
			* Tylenol 650mg PRN for fever
		- VTE PPx
			* Bilateral sequential compression devices
			* Anticoagulation contraindicated because high risk of bleeding
		- Seizure PPx
			* Levetiracetam 1000mg daily IV
		- Maintenance fluid with NS 30ml/kg/day (how much per h)
		- Respiratory: Alert provider for SpO2 < 90%
		- Mechanical Ventilation -(settings?)
			* ABG 30 mins after initial settings
			* ABG PRN if acute respiratory distress
			* Daily assessment per the weaning from mechanical ventilator protocol
		- Sedation
			* Propofol infusion at 10 micrograms/kg/minute
				+ Titrate by 5 micrograms/kg/min Q5min to maintain ordered modified ramsey sedation scale (Max 50 micrograms/kg/min)
				+ Change tubing q12h
				+ Serum triglyceride level at start of infusion and q72hrs while on propofol (Notify if >300mg/dL)
		- BP management
			* Nicardipine 12.5-75mL/hr IV continuous
	+ Hyperglycemia
		- Insulin Lispro 1-5 units q6h
		- fingerstick q6h
	+ Endotracheal Intubation
		- Retract ET tube until it is 2-3cm above the carina
		- Repeat CXR for confirmation of placement
	+ activity
	+ goals of care discussion
	+ disposition