### ✅ Summary of Significant Findings:  
  
| Finding | Interpretation |  
| -------------------------------- | -------------------------------------------------- |  
| CT Scan: Putaminal bleed | Confirms hypertensive ICH |  
| BP = 190/110 + LVH | Chronic hypertension as etiology |  
| Fixed pupil + coma + GCS 8 | Suggests mass effect with brain herniation |  
| Normal coagulation, glucose, ECG | Rules out metabolic, infectious, or cardiac causes |  
  
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Would you like help forming the final diagnosis and management plan?  
Here’s a breakdown of the positive findings and their possible pathophysiology:  
  
1. WBC (11,000 cells/mm³)  
  
 \* Pathophysiology: Mild leukocytosis could be due to an infection, inflammation, or stress response. In the absence of infection or acute inflammation, it could also indicate a response to other conditions like recent trauma.  
  
2. HCT (36%)  
  
 \* Pathophysiology: On the lower end of normal; could suggest mild anemia, particularly if the patient has any symptoms like fatigue or weakness.  
  
3. PLT (212,000 cells/mm³)  
  
 \* Pathophysiology: Normal platelet count; no immediate concerns. Platelet count might reflect a balanced bone marrow production, not indicating bleeding or clotting risks.  
  
4. HDL (89 mg/dl)  
  
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\* Pathophysiology: Elevated HDL is generally considered protective against cardiovascular disease, reflecting healthy lipid metabolism and reduced risk of atherosclerosis.  
  
5. LDL (45 mg/dl)  
  
 \* Pathophysiology: Low LDL levels can be protective against heart disease, but extremely low levels might also signal malnutrition or other metabolic concerns.  
  
6. Cr (1.2 mg/dl)  
  
 \* Pathophysiology: On the upper end of normal. If the patient has kidney disease or symptoms of renal impairment, this could indicate reduced renal clearance.  
  
7. BUN (20 mg/dl)  
  
 \* Pathophysiology: Normal BUN but on the higher end; it could indicate mild dehydration or renal stress, especially in combination with elevated creatinine.  
  
8. ALP (170 u/L)  
  
 \* Pathophysiology: Elevated ALP could suggest liver or bone disease. The value is elevated beyond the normal range, potentially indicating cholestasis, bone disorders, or liver pathology.  
  
9. RBS (105 mg/dl)  
  
 \* Pathophysiology: Elevated blood sugar, although within the normal range, could indicate a risk for impaired glucose tolerance or prediabetes, especially if consistently elevated.  
  
10. CT Brain (3 x 5 cm hyperdense area in putamen and part of thalamus)  
  
 \* Pathophysiology: A hyperdense lesion on a CT scan could indicate hemorrhage, ischemia, or a calcified structure. The location in the putamen and thalamus suggests a possible vascular event like a stroke.  
  
11. LVH with EF of 60%  
  
 \* Pathophysiology: Left ventricular hypertrophy (LVH) can be due to chronic hypertension or other cardiac conditions. An EF of 60% is normal, indicating preserved systolic function, but LVH may increase the risk of arrhythmias or heart failure over time.  
  
These findings suggest potential issues in the cardiovascular and renal systems, but most values are within normal limits. The CT brain finding stands out and should be followed up for further evaluation, especially to rule out a recent stroke or hemorrhage.  
If the patient were a known cardiac patient and presented with left-sided body weakness, along with a PR of 150 bpm, irregularly irregular, it would raise the concern of a cardioembolic stroke, likely due to atrial fibrillation or another arrhythmia.  
  
### Key considerations for this new scenario:  
  
1. Cardiac Risk Factors:  
  
 \* A known cardiac history, especially with arrhythmias such as atrial fibrillation (AF), significantly increases the risk of stroke due to the potential for blood clots to form in the atria and embolize to the brain.  
  
2. Clinical Presentation:  
  
 \* Left-sided body weakness is suggestive of a right-sided ischemic stroke or possibly hemorrhagic stroke. In the context of AF or other arrhythmias, embolic strokes are common.  
 \* Irregularly irregular pulse (PR of 150 bpm) is indicative of atrial fibrillation, which may be the underlying cause of the cardioembolic stroke. AF is a well-established risk factor for stroke due to thrombus formation in the left atrium, particularly in the left atrial appendage.  
  
3. Pathophysiology:  
  
 \* Atrial Fibrillation (AF): In AF, the absence of coordinated atrial contraction allows for the formation of thrombi, which can embolize to the brain, resulting in ischemic strokes.  
 \* The irregularly irregular pulse and rapid heart rate (150 bpm) suggest poorly controlled AF, which could lead to insufficient blood flow to the brain and result in stroke symptoms, such as weakness.  
  
4. Management Approach:  
  
 \* Immediate interventions:  
  
 \* Anticoagulation: Start anticoagulation therapy if ischemic stroke is suspected, especially with AF as the underlying etiology. Options include heparin or low-molecular-weight heparin (LMWH) followed by warfarin or a direct oral anticoagulant (DOAC).  
  
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\* Rate or rhythm control: Depending on the clinical scenario, consider medications to control the heart rate (e.g., beta-blockers, calcium channel blockers) or convert the rhythm back to normal (e.g., electrical cardioversion).  
  
 \* Stroke care: This includes monitoring for neurological deficits, CT or MRI of the brain, and other supportive measures.  
  
5. Neurological Exam:  
  
 \* Left-sided body weakness suggests a right-sided ischemic stroke. The findings of hypertonia, abnormal reflexes (Babinski sign), and facial palsy could indicate a central neurological lesion.  
  
### Conclusion:  
  
In this case, the patient likely has a cardioembolic stroke secondary to atrial fibrillation, and the management should focus on anticoagulation, controlling the arrhythmia, and addressing the neurological emergency (stroke care). Close monitoring and further neuroimaging (like MRI) would help confirm the diagnosis and plan treatment.  
Case summary  
This is a known hypertensive patient for the past 10 years who discontinued medication since a year back presented with loss of consciousness for the past 3 hours after she was told that her younger brother. He has fecal and urinary incontinence. Had history of headache since 2 weeks back. No other pertinent Hx.  
On examination ,acutely sick looking (coma)  
V/s; BP =190/110 mmHg, rtarm, supine position  
PR= 108 bpm, regular, full in volume  
RR= 21 breaths/min, irregular, deep  
To= 37.8 0c, axillary, in the morning  
SaO2 = 94 with atm air.  
CNS; - Comatose with GCS of 8/15 (E-2, V-3, M -3)  
Fixed and dilated left pupil, reactive and normal size right pupil  
Facial deviation to the right  
Hypertonic left upper and lower extremities, with comparable muscle bulk.  
Power is difficult to assess.  
Reflex is ¾ on her Lt Upper and lower extremities, with no clonus.  
Babiniski is upgoing.  
Non contrast enhanced CT scan of brain  
3 x 5 cm hyper dense are in the putamen and part of thalamus.  
She was diagnosed to have coma 2o to hemorrhagic stroke + Left sided facial palsy and is being managed with  
Coma care,  
NGT feeding  
Antihypertensive  
Close monitoring of BP  
Bedside physiotherapy  
  
MINI CASE  
What if she was a known cardiac patient and was found to have left sided body weakness while asleep. On physical exam, PR of 150 bpm, irregularly irregular