POLITICS

Clinton Out of Hospital After Treatment for Clot

By DENISE GRADY and MARK LANDLER JAN. 2, 2013

Hillary Rodham Clinton, whose globe-trotting tour as secretary of state was abruptly halted last month by a series of health problems, was discharged from a New York hospital on Wednesday evening after several days of treatment for a blood clot in a vein in her head.

The news of her release was the first welcome sign in a troubling month that grounded Mrs. Clinton — preventing her from answering questions in Congress about the State Department's handling of the lethal attack on an American mission in Libya or being present when President Obama announced Senator John Kerry as his choice for her successor when she steps down as secretary of state.

"Her medical team advised her that she is making good progress on all fronts, and they are confident she will make a full recovery," Philippe Reines, a senior adviser to Mrs. Clinton, said in a statement.

Mrs. Clinton, 65, was admitted to NewYork-Presbyterian/Columbia hospital on Sunday after a scan discovered the blood clot. The scan was part of her follow-up care for a concussion she sustained more than two weeks earlier, when she fainted and fell, striking her head. According to the State Department, the fainting was caused by dehydration, brought on by a stomach virus. The concussion was diagnosed on Dec.

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13, though the fall had occurred earlier that week.

The clot was potentially serious, blocking a vein that drains blood from the brain. Untreated, such blockages can lead to brain hemorrhages or strokes. Treatment consists mainly of blood thinners to keep the clot from enlarging and to prevent more clots from forming, and plenty of fluids to prevent dehydration, which is a major risk factor for blood clots.

Photographed leaving the hospital, Mrs. Clinton and her husband, former President Bill Clinton, and their daughter, Chelsea, appeared elated. In a Twitter post on Wednesday, Chelsea Clinton said, "Grateful my Mom discharged from the hospital & is heading home. Even more grateful her medical team confident she'll make a full recovery."

Dr. David J. Langer, a brain surgeon and associate professor at Hofstra North Shore-LIJ School of Medicine, said that Mrs. Clinton would need close monitoring in the next days, weeks and months to make sure her doses of blood thinners are correct and that the clot is not growing. Dr. Langer is not involved in her care.

Mrs. Clinton's illness cuts short what would have been a victory lap for her at the State Department. With only a few weeks before the end of President Obama's first term — the time frame she set for her own departure — she will be able to do little more than say goodbye to her troops.

But she will, at least theoretically, be able to testify before the Senate and House about the attack on the American mission in Benghazi, Libya, which killed four Americans, including Ambassador J. Christopher Stevens. She was not able to appear at a hearing in December because of her illness. Republicans, who have sharply criticized the Obama administration's handling of the attack and its aftermath, had demanded that she appear to explain the department's role, though in recent days they have modulated their request.

Mrs. Clinton's blood clot formed in a large vein along the side of her head, behind her right ear, between the brain and the skull. The vein, called the right transverse sinus, has a matching vessel on the left side. These veins drain blood from the brain; blockages can cause strokes or brain hemorrhages. But if only one

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In one sense, Mrs. Clinton was lucky: a clot higher in this drainage system, in a vessel with no partner to take the overflow, would have been far more dangerous, according to Dr. Geoffrey T. Manley, the vice chairman of neurological surgery at the University of California, San Francisco. He is not involved in her care.

The fact that Mrs. Clinton had a blood clot in the past — in her leg, in 1998 — suggests that she may have a tendency to form clots, and may need blood-thinners long-term or even for the rest of her life, Dr. Manley said.

One major risk to people who take blood thinners is that the drugs increase bleeding, so blows to the head from falls or other accidents — like the fall that caused Mrs. Clinton's concussion — become more dangerous, and more likely to cause a brain hemorrhage. Even so, the medication should not interfere with Mrs. Clinton's career, Dr. Manley said.

"There are lots of people running around on anticoagulants today," he said. "I don't see any way it would have any long-term consequences."

He also said there was no reason to think that this type of clot would recur; he said he had treated many patients for the same condition and had never seen one come back with it again.

Dr. Langer said the vein blocked by the clot might or might not reopen. Sometimes, he said, the clot persists and the body covers it with tissue that closes or narrows the blood vessel. As long as the vein on the other side of the head is open, there is no problem for the patient.

One thing that is unclear, and that may never be known for sure, is what caused Mrs. Clinton's blood clot. Around the second week in December, she reportedly contracted a stomach virus that caused vomiting and dehydration, passed out, fell and struck her head. A concussion was diagnosed several days after the fall, on Dec. 13, and the public was told Sunday that she had a blood clot, though its location was not revealed until the next day.

She had several risk factors for clots, including dehydration and her previous

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history of a clot. In addition, women are more prone than men to this type of clot, particularly when dehydrated. The fall may also have been a factor, though it is not clear whether her head injury was serious enough to have caused a blood clot. The type of clot she had is far more likely to be associated with a skull fracture than with a concussion, several experts said.

Did overwork — frequent overseas trips, perpetual jet lag, high-pressure meetings — make her ill? Mrs. Clinton has kept up a punishing schedule since she declared her candidacy for president in 2007. Having logged more than 950,000 miles and visited 112 countries, she is one of the most-traveled secretaries of state in history. She has put on weight and in recent times appeared fatigued. But the same could be said of plenty of people who do not develop clots in their heads.

"You cannot tell me that her hard work resulted in this," Dr. Langer said. "I can't imagine that you could make that judgment."

In theory, Dr. Manley said, exhaustion can weaken the immune system temporarily, and lower a person's resistance to infections like the stomach virus that apparently started Mrs. Clinton's problems. But in his opinion, the most important contributing factor to her blood clot was probably the head injury from her fall.

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