

Embroidery and the Birth of Vascular Surgery

El bordado y el nacimiento de la cirugía vascular

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It was the end of June 1894 in Lyon. Marie François Sadi Carnot rested his gaze upon the roofed buildings that circled the banks of the Saône. The waters were mighty and ran monotonously south to meet the Rhône. Green assaulted the landscape announcing the incipient summer. On the heights of the arboreal thicket, he rejoiced with the basilica of Notre Dame de Fourvière, almost completed on the “praying hill”.

Alexis Carrel slowly rode his horse into his town of birth. Before opening the gate, he observed from the slopes of the hill the view he kept in his most primitive memory. The entire ancient city of Lyon offered itself with the chimneys and bridges which crossed the two rivers nesting it. Looking up into the afternoon mist he could still glimpse the first steps of the Alps. He had taken refuge away from the noise of the momentous visit offered by the President of the French Third Republic Sadi Carnot. In those days he was starting the second semester of medicine at the Lannois service of the Antiquaille Hospital.

Sadi Carnot entered the reception. He then raised loud cheers with his speech. At the end of the presidency term, he was relaxed and satisfied by his task. He had a taste for voluntary resignation by insinuating that despite the zenith of his prestige and popularity, he did not wish to be reelected. Outside the banquet Sante Gerónimo Caserio stalked him with surprise in his favor. He had decided to play the contradictory role of anarchism insidiously propagated around that time in Gaul. The pain inflicted by the edge of the knife in the right flank, wielded with swiftness by the Italian anarchist, was sudden, excruciating. A hot scarlet color gushed out from the victim's gut. Marie François knelt down. His hands pressed against the wound were instantly overflowed. Now the stab was the gauge of an accurate scale that paled the president's complexion as his white breastplate turned immensely red. The landau at a gallop rushed to the hospital. The portal vein had been sectioned. Only the diagnosis could be made, the rest was impotence. Death occurred in the early hours of June 25. The clarity of the absent sun revealed a quiet city at dawn. The fine rain meditated with its sadness.

Alexis found out about the circumstances when he returned to the city the next day. In the verbal contest of the medical cloisters, there was a long discussion about the impossibility of solving blood vessels sutures since it was considered that the stitches could not, by sheer logic, be perforating. In fact, in gastrointestinal

surgery Lambert's non-perforating stitch was used. Carrel had been reluctant to this verdict. Anne-Marie Ricard, his mother, was again the oracle of his premonitions. Alexis explained his dilemma in detail. He needed tools other than the existing ones. The sutures had to be thin to avoid bleeding from the procedure. Perhaps being a descendant of a family that traded in wool and silk, her advice was a stunning intuition.

-Son, you must use very subtle and small needles.

-Do they have a name?

-Yes, they are used in making lace, that's why they are called lace makers!

-The thread must then be very thin.

Anne-Marie watched him for a moment. Then she responded almost naturally.

-You must thread those needles with silk threads.

-Mother, I have not been able to find suitable instruments anywhere.

-Go to the rue Jean de Tournes. There is an old wholesale haberdashery belonging to the Assada family.

The data were reliable. Alexis got the essential elements for the experience. When he returned to his mother with what he had found, she awaited him with another sentence.

-Look “Bébé” (that's how her mother called him) you must consult the problem with Mrs. Leroudie. I think you need to be very skilled to fulfill your purposes.

Alexis looked at her with astonishment. She hadn't called him that for a long time. -Who is she?

-She is a silk embroiderer of great renown in the city. She will give you lessons on how to use needles quickly and accurately. Complement your medical internship with embroidery classes.

His friend Marcelo Soulier provided him with the place he needed, the laboratory of his prestigious father, a professor of therapy. Starting from that possibility, and once all the elements imposed by his idea had been gathered, the solitary work that he sought was hard. The success of the experience spread gradually without his intervention. Expectations were built up in the environment but also led to hurtful comments. Thus, Morat, a prestigious professor of Physiology, put a stop to imagination in the most recognized journal of the profession, the “Lyon Médical”, warning against the real impossibility of these investigations. He even sneered at Carrel's needles. In 1912 he received the Nobel Prize in Medicine.