WW II “guinea pigs” played crucial role in refining plastic surgery in Canada

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In brief

WHEN WW II STARTED, Canada had only 4 plastic surgeons. One of them, Dr. Ross Tilley, would treat hundreds of Allied airmen whose bodies needed massive reconstruction because of war injuries. These men became known as the guinea pigs, and Tilley would bring the lessons he learned on them back to Canada.

En bref

AU DÉBUT DE LA SECONDE GUERRE MONDIALE, le Canada ne comptait que trois chirurgiens plasticiens. L’un d’entre eux, le Dr Ross Tilley, dut traiter des centaines d’aviateurs alliés ayant besoin de reconstruction massive suite à des blessures de guerre. Ces soldats furent surnommés «les cobayes», et le Dr Tilley rapporta au Canada les leçons apprises en les traitant.

War is best remembered for its horrors, but from horror good sometimes emerges. In WW II, for instance, a quiet cottage hospital near London produced medical benefits that would have an impact long after the war ended. There, Canadian plastic surgeon Ross Tilley and a group of colleagues worked their magic on members of the Guinea Pig Club.

The name was chosen by one of the founding members, an airman, who said: “We’re nothing but a bunch of damn guinea pigs.” They were indeed. By the time WW II began technology had provided countless ways to kill and disfigure. Members of this unique club were in the latter category, and their horrible injuries helped surgeons like Tilley break new ground. By war’s end the club would have 630 members, including 170 Canadians.

In 1939, Tilley was 1 of only 4 Canadian plastic surgeons; since then the specialty has grown to include 429 surgeons. He trained under Dr. Fulton Risdon, Canada’s first specialist in the field, but it was the guinea pigs who allowed him to develop new techniques not only for dealing with physical injuries but also with the accompanying emotional damage.

One of the first steps taken by Tilley and other doctors at the Queen Victoria Hospital in East Grinstead was to arrange a town meeting. They told the townspeople they were going to encourage the badly burned pilots to socialize in the town. They warned the residents that they were in for some troubling sights, such as men left without eyelids and with fire-scarred faces, but they appealed to them not to stand and stare. Making the patients feel welcome, buying them a drink and talking to them were important parts of the healing process, Tilley explained.

The people listened, and wounded men in air force uniforms soon became regulars in pubs around East Grinstead; a number even married local women. The townspeople quickly became active participants in the healing process.

The comfortable environment extended to the hospital wards, where drinking was allowed. However, one rule could not be broken: no one could drink the day before being “chopped” — the term they used to describe the plastic surgeons’ work.

Tilley’s achievements in England helped to develop standards of patient care
that brought Canada into plastic surgery’s modern era. He and the other surgeons at the Queen Victoria literally had to put their patients back together. The procedures ranged from the reconstruction of horribly battered feet to rebuilding faces and hands that had been deformed by fire or other injuries. Tilley was convinced that the personal demons confronting the injured personnel arriving at East Grinstead were held at bay by the camaraderie and all-for-one attitude provided by the Guinea Pig Club, and he maintained that this bond helped the healing process.

Indeed, Ross Tilley proudly served as honorary president of the club’s Canadian wing until his death 10 years ago. The members, who are now in their 70s and 80s, continue to meet every 2 years. Because of advancing age their 2-day parties have been reduced to 1-day get-togethers, but they continue to think fondly of their unique club.

Tilley once said that “only God can create a face,” but for many airmen he became a close substitute for God. Most of the injuries he faced involved flash burns of the hands and face, since there was little equipment protecting them. Fortunately, his patients were young and in fine physical condition, and most of the burn injuries did not affect internal organs. His first step was usually an attempt to rebuild the patient’s ears. Without them, he asked, “How could a man hold his glasses on?”

Tilley even encouraged the guinea pigs to visit the operating theatre to witness the operations they were being scheduled for, an unorthodox method that helped take the mystery out of the procedures.

Dr. Norman Park, the anesthetist in the Queen Victoria’s Canadian Wing, also played an important role. Known as “the sandman,” he ensured he was present when airmen awoke after an operation. He said he wanted to ensure that the last face which they saw before “going under” was the first they saw upon waking up.

When the war ended, the guinea pigs still had battles to fight. Tilley remained their surgeon and performed their operations for 40 years, until failing health forced him to retire. Toronto’s Wellesley Hospital recognized his contributions by naming its burn unit in his honour. A secondary school in his hometown of Bowmanville, Ont., was also named in his honour. ¶

Many of Dr. Ross Tilley’s patients flew planes like these Spitfires.

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