CASE REPORT: THE FIRST MIDDLE FACE RECONSTRUCTION AFTER MOHS MICROGRAPHIC SURGERY OF INVASIVE BASAL CELL CARCINOMA AT HUE UNIVERSITY OF MEDICINE AND PHARMACY HOSPITAL

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BCCs are abnormal, uncontrolled growths or lesions that arise in the skin's basal cells, which line the deepest layer of the epidermis (the outermost layer of the skin). BCCs often look like open sores, red patches, pink growths, shiny bumps, or scars and are usually caused by a combination of cumulative and intense, occasional sun exposure.

BCC almost never spreads (metastasizes) beyond the original tumor site. Only in exceedingly rare cases can it spread to other parts of the body and become life-threatening. It shouldn't be taken lightly, though: it can be disfiguring if not treated promptly.

More than 4 million cases of basal cell carcinoma are diagnosed in the U.S. each year. In fact, BCC is the most frequently occurring form of all cancers. More than one out of every three new cancers is a skin cancer, and the vast majority are BCCs.

Mohs micrographic surgery is considered the most effective technique for treating many basal cell carcinomas (BCCs) and squamous cell carcinomas (SCCs), the two most common types of skin cancer. The procedure is done in stages, including lab work, while the patient waits. This allows the removal of all cancerous cells for the highest cure rate while sparing healthy tissue and leaving the smallest possible scar.

It began as a technique called chemosurgery, developed by Frederic E. Mohs, MD, in the late 1930s, but was not widely known. In the mid 1960s, Perry Robins, MD, became the first dermatologist to study the technique with Dr. Mohs, and he helped advance the procedure into what is now called Mohs micrographic surgery.

Patient is Nguyen Thi Th. 84 years old, with a history of nasal neavus since childhood. Four years ago, the neavus has becoming increasingly ulcerative. She was diagnosed with basal cell carcinoma in the nasal region. However, she was advised to come back home without any further treatment. Following the doctor's advice, she and her family mostly surrendered with a belief that cancer was still an incurable disease. In 4 years, from a pea-sized lesion, the ulcer increased in size and invaded the entire nasal area. The tumor continued to spread to two buccal areas, nearly half of the upper lip and from the nasal root to the internal corner of the right eye. Recently,there has been malodorant secretion due to the invasion of the tumor causing necrosis to the nasal septum cartilage. In addition, increasing bleeding from the ulcer and rheum from the right eye have drawn more concern and attention from the family members. From the introduction of their friends, she was referred to Hue university of medicine and pharmacy hospital and hospitalized on March 3rd, 2016.

Figure 1. Nguyen Thi TH, 84 yo, before surgery

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At admission, she presented as a thin 42-kg and 156-cm, conscious but very anxious and fatigued women. Physical examination revealed no palpable regional lymph node, a bleeding vegetato-ulcerative tumor with yellow malodorant secretion. After history taking and thorough physical examination, the patient was diagnosed with necrotic basal cell carcinoma extending to the bilateral buccal area, upper lip and inner corner of the right eye. Patients was advised to have surgery after doing further tests to assess related risks and to select appropriate intervention.

Patient was assigned further preoperative tests which showed no serious medical risks for surgery except her age. However, considering the surgical approach, this was a difficult case because the repair was related to five facial aesthetic units (nose, 2 cheeks, upper lip and right inner corner of the right eye). Especially there was a suspicion of deep invasion in the eye corner, making reconstruction and total cleansing of cancer cell complicated, which sometimes neccessitate unilateral eye removal in case of visual defect and excessive eye discharge. Fortunately, on CT scanner, the lesion appeared to be superficial and not involved with underlying bony structures.

After careful discussion among all the surgerons in the department and anaesthetic consultation, the patient was planned for tumor removal by Mohs micrographic surgery and reconstruction in two stage.

The first surgery was conducted on March 7th, 2016. En bloc tumor removal with a security margin of 5 mm from the macroscopic tumor was performed and margin control with Mohs micrographic surgery. Markers were placed at different borders to allow recut if clean microscopic margin was not obtained.

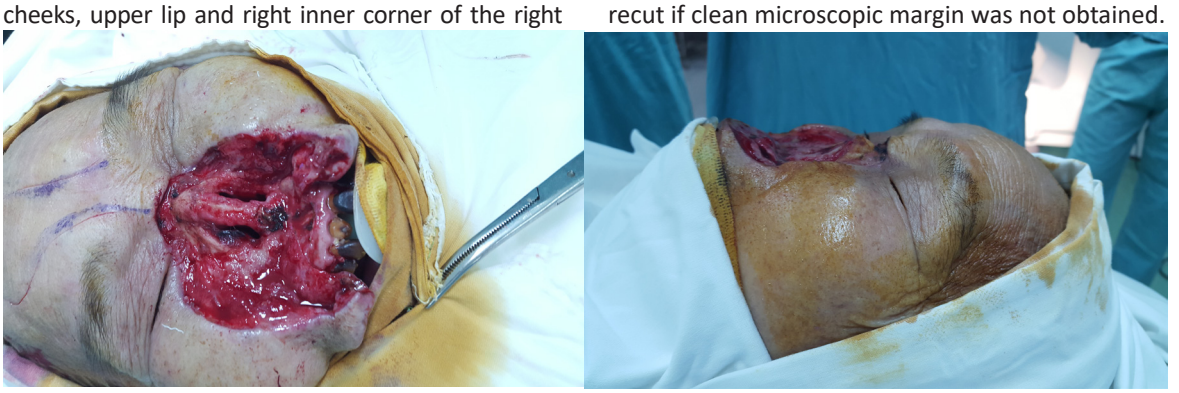

Figure 2. Nguyen Thi TH, 84yo, after Mohs micrographic surgery

After the first surgery, the patient was in good health condition and more optimistic. Her quality of life was improved as there was no longer malodorant secretion from the tumor. However, there was still concern from the family member as the defect was larger than previously expected. The second reconstructive procedure was really a challange. To cover the entire defect and ensure mucosal lining, a large area of flap with high versitality such as “chimeric” microvascular anterolateral thigh flap was required. However, this 6-8 hour-long procedure under general anesthesia would be too risky for this 84 year old patient. After careful assessment of the lesion, we decided to choose local flap for the second operation if the extemporaneous biopsy of surgical margins was to be negative. We planned to use 5 flaps: forehead flap to create the shape of the entire nose, two buccal Mustarder flaps for the inner surface of the nose and part of the nostrils, modified Karapandzic flap for the upper lip, and full-thickness skin graft for partial linning of nostrils.

The second surgery was conducted on March 15, 2016. Mohs method of extemporaneous biopsy was used to guide the cleaning of the resected margin and the linning of the defect. Reconstruction was performed using flaps (forehead, Mustarder, Karapandzi) and full-thickness skin graft. Fortunately, fresh biopsy results were negative and therefore, recut was not necessary. In addition, two Foley catheter were placed in the neo-naris to facilitate breathing and shaping of the new nose.

A B

Firgure 3,4. Nguyen Thi TH, 84 yo, after reconstruction (A) and on post-op day 11(B)

After the second procedure, she was quickly recovered with no incisional complication and easy breathing via her new nose. Sutures were removed and patient was discharged at post-op day 10. Further follow up two year after surgery no recurrent.

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