Conjoined twins – a remarkable story of Eng and Chang Bunker

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Eng and Chang Bunker are ones of the most well-known conjoined twins. They were born in 1811 in a small village at the Mekong River in Siam. The commonly used term "Siamese twins" is derived from these brothers. They were joined in the abdomen with a 12 cm long and 8 cm wide tissue band (xiphopagus). Their life was extraordinary. They had a lot of children. Owing to their originality, the brothers had a significant impact on the surrounding world and even on political life. Their memory has lived on until today. The bridge joining twin cities, which was built in 2001 at the Steward Bay, is named after Chang and Eng Bunker.

Key words: Eng and Chang Bunker; Siamese twins; one from many

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INTRODUCTION

Eng and Chang Bunker are ones of the most well-known conjoined twins in the history. They were born on May 11 1811 in a small village at the Mekong River in Siam (today's Thailand) to an impoverished fisherman's family. The layperson term "Siamese twins" is derived from their condition and birthplace. Their father was Chinese while their mother was half-Chinese and half-Malay. In Siam, the brothers were known as the "Chinese twins," and their names meant "left" and "right" in their native language [1].

THE HISTORY OF ENG AND CHANG BUNKER

For the first 6 years, the brothers stayed with their mother and lived a relatively normal life. Separated from the outer world by their parents, the boys were not aware of how different they looked from most of the five million other Siamese boys.

They were joined in the abdomen with a 12 cm long and 8 cm wide tissue band (*xiphopagus*). Their mother refused when doctors proposed separation surgery in fear of death of one or even two sons. However, she taught them to stretch the connecting tissue to make them able to stand next to each other rather than face to face [1].

Their father died when they were 8. Having no other choice, the mother sent her sons to work. They started selling goods in villages as door-to-door salesmen. They turned out to be unmatched in this profession since there was no single person that did not want to let in such a peculiar couple. Shortly, the brothers became so popular that the king of Siam himself heard about them [2,3].

Their childhood ended suddenly when the monarch's soldiers came to take the boys before the king. Their birth was considered a bad omen by priests, a prophesy of great calamity

and cataclysms, even the end of the world. Therefore, King Rama II sentenced them to death, but changed his mind as soon as he met the boys personally and saw that they were harmless and charming in their distinctness. He invited the boys to his palace in Bangkok, from where he did not let them go. In the court, they were treated as a precious treasure, showered with gifts. They lived in luxury, taking part in feasts and courtly ceremonies, and entertaining the king and his guests. They were even sent to diplomatic missions. In 1824, as they were swimming in a river, there were spotted by a Scottish trader, Robert Hunter. He established good contact with the brothers and gained their trust, finally becoming their close friend. He decided to take the brothers with him and turn them to good business. However, the king was unwilling to get rid of the twins. He did not want them to leave his court [4].

In 1829, Hunter and his collaborator Captain Abel Coffin returned to Siam. They offered the brothers' mother money to agree to her sons' departure abroad. Following her approval, they turned to the king of Siam for permission again. This time, the successor of Rama II, Rama III, agreed to their departure after being assured that the boys would constitute great representation of his country. This way, the brothers, being 18 at that time, were taken to Boston, USA, where they soon became the most unusual attraction of the Barnum and Baily Circus, where they earned their first successes. Captain Coffin became their official manager, and the spectators quickly started calling them "the Siamese Double Boys," which led to the coinage of the term "Siamese brothers," used until now.

After several months spent in the USA, the brothers left for England where they quickly became popular and evoked spectators' interest. They were exhibited in the Egyptian Hall museum in London. The entire Royal Family came to see the brothers. The program of their shows was quite diversified. They performed various acrobatics and feats of strength. The display of the tissue band that joined the twins was of particular interest to the spectators [1,3].

After an enormous success in England, Chang and Eng decided to go to France but were denied entrance by the French government. Doctors claimed that seeing such "monsters" by pregnant women might lead to births of similarly deformed children. Apart from France, the rest of Europe stayed open for the brothers [3].

In 1829–1831, Chang and Eng toured nearly the whole world with the Barnum and Baily Circus. They were called the "eighth world wonder." During their tours, they were examined by doctors on numerous occasions and underwent medical experiments to determine the nature of their connection and feasibility of surgical separation.

In 1832, Chang and Eng ended their contract with Captain Coffin (when they were in Europe, Hunter sold his rights to represent them) as they realized that he had seized most of their earned money. In the same year, the brothers returned to the USA where they took full control over their career and finances. They performed as the Siamese Brothers in the circus managed by P.T. Barnum for 7 years. In 1839, having collected a considerable fortune, they decided to end their artistic career. They chose a small town in North Carolina - Wilkesboro, and settled there for good. Initially, they tried to run their own business and opened a small store. However, this venture was unsuccessful. Undeterred, the brothers bought two neighboring farms in the West of Mount Airy and became farmers. They owned a dozen or so slaves, of whom most belonging to Eng fought in the American Civil War on the side of the Unionists. Descendants of the slaves freed by Eng still live in Mount Airy today [5].

In 1839, the brothers acquired American citizenship. Since they had no surname, they were called "Chang and Eng, the Siamese twins." In 1844, they petitioned the authorities



Fig. 1. Adult Bunker brothers

to grant them the Bunker surname. It remains unknown where the idea for this surname came from.

In 1840, the twins decided to get married. Next year, Chang and Eng met Adelaide and Sarah Anne Yates - likable sisters, two of nine daughters of a local minister and farmer, David Yates. Since local residents considered these relationships bigamy and were against them, Chang and Eng decided to undergo surgical separation in a hospital in Philadelphia. However, their fiancées protested vehemently as they had discovered their plans. This way Chang was married to Adelaide Yates and Eng to Sarah Anne in April 1843. They had two separate wedding ceremonies and receptions. Both women were sisters so it was easier for them to accept their common life with such unusual husbands. After 14 years of marriage, the brothers build separate houses for their families and decided to move every three days [1,2].

They had 20-23 children in total (the number varies across sources, probably because many children died young at that time). Their first children were daughters born 6 days apart. Twenty-one children lived through adolescence. Eng had eleven (6 boys and 5 girls) and Chang had ten (7 girls and 3 boys) children. The children developed normally except for Chang's one son and daughter who were deaf-mute. There were no twins. However, their two granddaughters gave birth to normal twins. Regularly increasing family caused shortage of money and the brothers decided to reactivate public performances in 1850. In 1860, they met the famous showman, P. Barnaum again and collaborated with him for some time in New York. Barnaum organized and sponsored their next European tour, where the brothers were subject to medical examinations again to determine the feasibility of separation. However, the procedure seemed risky and surgeons were unwilling to undertake it. Due to deteriorating health, the brothers decided to return home and resettled in North Carolina at the beginning of the 1870s.

They were keen hunters and chased game enthusiastically. This was a probable cause of partial hearing loss: in Chang's both ears and in Eng's right ear. It was probably caused by gunshot bangs and since the brothers rested rifles on their right shoulders, and Eng was always on the left side while Chang on the right side, Eng suffered hearing loss in his right ear only.

The brothers had very different characters. Eng was an introvert and melancholic. He spent most of his time reading the Bible or Shakespeare and pondering about his family in Siam. He had always dreamt of separation. He wanted to be as other people and was craving for freedom and privacy. The behavior of his brother frequently irritated him. Eng considered Chang to be slower, less observant and overusing alcohol. In many biographies, Chang is presented as more dominant, open, sharp-witted and a born actor that felt at home on the stage. He also seemed to accept his fate: he did not want to be separated and independent [3].

On January 12 1874, at the age of 63 and 2 years after stroke, Chang contracted severe pneumonia and died early in the morning of January 17. At the time of his death, Eng woke up alarmed and discovered that his brother had died. He called for his son William and told him the bad news. The boy informed the whole family, shouting "uncle Chang is dead." At that time, Eng was fully healthy. However, he guickly started complaining about severe sweating, weakness and muscle spasms. His health was declining and Eng died four hours later. The brothers' doctor had promised earlier that he would perform a separation surgery in the case of death of one brother. Unfortunately, the doctor was unavailable as Chang died. When the bodies were being embalmed, it occurred



Fig. 2. Eng and Chang Bunker in the Egyptian Hall

that Chang, who died first, was "bathed in blood" while his brother Eng was "devoid of blood" [6]. Several days later, the College of Physicians of Philadelphia brought their bodies to Philadelphia. The post-mortem examination was conducted by Dr. Harrison Allen and Dr. William H. Pancoast at the Mütter Museum. It was found that Chang died of a cerebral clot and Eng probably due to hemorrhagic shock. Moreover, the post-mortem examination revealed that the brothers were joined only with a narrow tissue band at the sternum [6]. The only organs with common vascular connections were the livers, but even so they were independent in anatomic and functional terms (the livers are still being stored, fixed in formalin in the Mütter Museum in Philadelphia and exhibited next to the death cast of the twins). It was agreed that safe separation had been possible but this option had never been formally presented to the twins. In light of today's knowledge and possibilities offered by medicine, their anatomic defect was not very complex and separation surgery would be fully safe. It would be sufficient to clamp and cut the connecting tissue band. The cause of hemorrhagic shock that led to Eng's death has not been fully explained. Some doctors believed that he died of "fright." Later, it was thought that the thromboplastic material could have passed from the dead to surviving twin by numerous vascular anastomoses in the connecting tissue band, DIC developed, coagulation disorders occurred and Eng bled to death [3,6–8]. In our opinion based on the reported symptoms after Chang's death, the third option seems the most probable. At the time of death, blood gradually flew through the connecting blood vessels from the surviving twin with normal blood pressure to the dying brother with extremely low blood pressure. This led to acute anemia, hypotension and perfusion disorders of the brain and other organs, in consequence leading to death. Eng's life could have been saved by only clamping the connecting tissue band containing large vascular anastomoses.

REMARKABLE EVENTS IN THE BUNKER BROTHERS' LIFE

The life of these unique brothers was abundant with curious events. Once, in a pub, Chang, who overused alcohol, offended and attacked a certain citizen. He brought the case to court and demanded a prison sentence for Chang.

After a two-day trial, the judge decided that such a sentence could not be executed since the innocent Eng would have to be imprisoned as well [1].

Mark Twain, a close friend of Chang and Eng, tells in one of his stories how Chang was on the Confederation side during the Civil War while Eng supported the Unionists. At some point, each of them enslaved his brother and several days later, they negotiated the exchange of prisoners [3]. Mark Twain was so fascinated with Chang and Eng Bunker that once he decided to impersonate them and prepared a small performance for friends at his home. The invited guests were welcomed by Mark Twain and the other identically dressed man, and their shoulders were joined with a pink tape. Together, they played a short comedy scene during which one of them drank large amounts of alcohol while the other, non-drinking, gibberishly spoken to the spectators as though he was getting more and more drunk [1].

Chang and Eng took an active part in the political life of their state and participated in regional election regularly. Due to their differing political views, they frequently had heated, family arguments at the ballot box.

Apart from these amusing stories, of note is the fact that owing to their originality, the brothers had a significant impact on the surrounding world and even political life in the country. In April 1865, the Union General G. Stoneman came to North Carolina to recruit soldiers. This took place in an unusual manner since the names of all men at the age of 18 or above, irrespective of the political views, were written on sheets of paper and put into a raffle drum. One of the called Unionist soldiers-to-be was Eng Bunker. However, his brother Chang was not selected, and absolutely refused to enlist voluntarily to the Unionist army. General Stoneman could not enlist Eng, even by force. The American law was respected also during the turmoil of war [1]. Chang and Eng had a great impact on the liberalization of the then views of the conservative community on conjoined twins, people of different physical appearance and deformed by various congenital defects. It turned out that these people can also live normal lives, work, have families, children and serve for the good of all.

In the 19th century, the Bunker brothers were ones of the most recognizable figures in the United States. They were a subject of various press articles, books, poems, satires, lithographs and theatrical plays. Also, they were a common

model for dress-up parties. When the United States of America were not fully united, Chang and Eng were, for many American people, a personification of their own political struggle. The double body of the brothers became a specific symbol for unifying all American states in the coherent whole, and not into loose confederation, as they had been before. It is said that, when looking at the Bunker brothers, people asked themselves a question: Are they two people or a single person?; just as with their country, which was based on one nation, but was divided into numerous independent states. On January 26 1830, a Senator from Massachusetts, Daniel Webster, made a speech in the Congress against any separatist ideas. He called for loyalty to the country with words: "sentiment, dear to every true American heart - Liberty and Union, now and forever, one and inseparable." The Bunker brothers served as an example [1,2,5]. This phrase became so popular that it was even quoted in the McGuffy's Reader, an elementary school textbook, to be remembered by school children. It was also reprinted on handbills promoting twin performances. The handbill was entitled "A Few Particulars concerning Chang-Eng, The United Siamese Brothers." Under the title was an American eagle with a shield, emblazoned with the motto "E pluribus unum" (Latin: "One made of many"). In case people did not understand the point being made, the Webster's quotation was also printed below: "Union and Liberty, one and inseparable, now and forever." The use of Chang and Eng as a symbol of American politics was continued for many years to come. It was always stressed that they were really one person, but with a hyphenated name Chang-Eng. The conjoined body of the twins became a strong argument for full unification of the United States and formation of the Union

rather than a Confederation [1,2,5,6]. In American politics, the Bunker brothers were also used later in the 19th century with a view that, as the United States, they were really one, and they were worthy of the name "United Siamese Brothers". The attempts to surgically separate them and the ultimate decision to sever the tie between them were seen by the progressive part of the society as a political allegory of division and fall of the United States. On the other hand, the Union opponents, mostly extremely conservative citizens of the South, viewed the Siamese brothers as an unnatural and faulty connection.

Chang's and Eng's marriages were initially fiercely criticized in highly prudish America and viewed as a deviation from religion and custom. They were considered specters of homosexuality, incest, adultery and exotic orgies of flesh which were profoundly confronted by the supporters of the traditional heterosexual family model. Before their marriages, it was speculated whether such unions could be legitimate. It was thought that "each of them had his other half," and even though unmarried, could never be autonomous men in intimate contacts [3]. Of interest is the fact that, according to the then American law, male conjoined twins could enter into marriage with two women, but female twins could not since judges believed this to be bigamy.

CONCLUSION

The memory of the Bunker brothers has lived on until today, particularly at the place of their residence. The bridge joining twin cities, which was built in 2001 at the Steward Bay, is named after Chang and Eng Bunker, while one of the roads, the *Bunker Road*, was named to commemorate Scott Bunker, a descendant of the famous parents.

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