

## **Poetry in motion- Reflections of an orthopaedic surgeon**

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It's 6.30am in the morning as I walk towards the science-faculty canteen in the University Campus. It's a ten-minute walk from the hospital but the coffee is worth it. The uncle who owns the stall still remembers his usual customer. As a medical student nearly ten years ago, I was his regular patron before my lectures began for the day. Today, he shows me excitedly from his iPhone, a Facebook page created for him by some of the science faculty alma mater and obvious coffee-addicts. I smile at him and take my coffee.

I sit down with my hot cup of coffee and I see Professor Raj in the distance sipping on his drink enjoying the quiet morning. He was the one who introduced human anatomy to me as a first year medical student. Through the use of plasticine models, he simplified the intricate dance of human embryological development in-utero. I have him to thank for seeding the buds of interest in a surgical career so early in my life.

The morning felt like a throwback in time and I felt deeply nostalgic, partly contributed by the post-call adrenaline rush that many an orthopaedic surgeon feels, after operating for the entire night without sleep. I had an eventful night, grappling with a difficult radius-ulna fracture, a comminuted hip fracture and topping off with an open distal tibia fracture in the wee hours of the morning. The coffee tasted good as I began to think about orthopaedics and my life.

My interest in orthopaedics began when I was learning to give trigger finger injections as a medical officer. A year later, I passed the basic surgical exams and obtained a traineeship in orthopaedic surgery. I fell in love with the functionality of orthopaedic surgery. It didn't just diagnose disease but drove a nail through it so that the patient could walk. It fixed the problem. It restored function.

The concept of fixation is a central theme in orthopaedic surgery. I sometimes think a chosen specialty is congruent to someone's personality and the desires and drives that motivate one in life. I have always loved solving problems. Orthopaedic surgery thus feels natural to me and is an extension of my desire to fix- fixing problems, fixing the lights, fixing my bicycle, fixing hearts and souls.

Sometimes, there is an overwhelming desire to improve upon nature, to change things merely for the sake of instituting change without actually

deriving any real benefit. Orthopaedics is synergistic with the laws of nature. Just as how important it is to respect the natural healing potential of bone, the orthopaedic surgeon helps nature along by setting the bone in the right place. Orthopaedics is the harmonious dance between the surgeon and nature.

However, more than just the technical aspects, orthopaedic surgery is a complex science and the biomechanics of motion is central to it. The study of concepts in physics, tribology and biomechanics are integral in the surgical science that is orthopaedics.

From the moment we wake and start our day, the sublime grace of human motion belies the complex orthopaedic orchestra that plays within. I realize as orthopaedic surgeons, we are actually stagehands. We tune and retune the instruments in this orchestra. Sometimes, they require repair and sometimes we may need to replace the instruments that are worn out. Very rarely, we may be forced to remove some instruments but the music still plays on and our role is in doing our best to make the music sound great.

Our evolution as humans from quadrupeds to erect bipeds took about 3.5 million years, largely due to the evolution of a prehensile foot to the foot that we understand of today. It allowed us the possibility of weight bearing and movement in the erect posture. It allowed freedom of the upper limbs for fine work and manual labour and the development of the hand for the use of complex and fine tools that set us apart from other primate species. With that, evolution of the brain and mental capacity followed, enabling transmigration, the growth of civilizations and the evolution of philosophy, science and advanced human thinking.

As a surgeon, my job allows me to fix and also marvel at the highly complex skeletal form that is a result of a million years of evolution. More than that, I am reminded of how the human spirit has brought us forwards to achieve many things thought impossible in an earlier era. To me, the form and function of the human musculoskeletal system is inspirational.

The human spirit evokes a certain emotion in me that makes me tingle and I remember a famous Victorian poem 'Invictus' by William Ernest Henley.

“Out of the night that covers me,  
Black as the Pit from pole to pole,  
I thank whatever gods may be  
For my unconquerable soul.

In the fell clutch of circumstance,

I have not winced nor cried aloud.  
Under the bludgeonings of chance  
My head is bloody, but unbowed.

Beyond this place of wrath and tears  
Looms but the Horror of the shade,  
And yet the menace of the years  
Finds and shall find me unafraid

It matters not how strait the gate  
How charged with punishments the scroll  
I am the master of my fate  
I am the captain of my soul “

This is one of my favourite poems. It's a tribute to the indomitable human spirit. At the age of seventeen, Henley had to undergo an amputation for his leg as it had been infected with tuberculosis. That did not stop his inspirational life a single bit. He lived a full life till the age of fifty-three publishing several literary works of note. His works revolve around the theme of fortitude of character and self-mastery. He is well remembered for his poem "Invictus" that inspired the likes of Nelson Mandela and Franklin D Roosevelt.

What can a surgeon like me learn from Henley? I believe it's the conscious realization that the patients we treat do have their fears, concerns for the future, and a sense of uncertainty. Though Henley found his answers from within, many a time as a provider of care, I believe we owe it as our responsibility to address these concerns in our patients. It's important for them to acquire the inner strength to help them face their outward disabilities, or whatever life may throw at them.

Unfortunately the modern practice of medicine is the push to practice medicine defensively. Due to these reasons, we may often forget compassion and empathy when communicating with our patients. We may be fixing the problems that are clinical, but not truly giving the patients a sense of hope and purpose to help them face the new status-quo or disabilities in order to move forwards in life.

It is my belief that although we have patients in whom adopting a paternalistic approach in treating their health may do them good, there are many others in whom feeding their motivation with words of encouragement and compassion may just be as equally effective. Seeking a balance is the best, as I believe

that the body and soul feed one another and as a doctor I could never treat the body without feeding the soul with nourishment- motivation, courage and compassion.

Professor Raj has left. In his table now, there are a few medical students with their folded-up white coats and stethoscopes reading their Oxford handbook of Clinical Medicine. I suddenly got reminded of my very own stethoscope, or rather, it's very long absence. Orthopaedic surgeons do not carry stethoscopes, do not wear ties and always roll up their sleeves. It's done for the best intentions, as we do not want these items to be fomites, spreading infections from bed to bed during our ward rounds, as we see patients. Our uniqueness does not just end at our fashion sense it seems. I also fondly remember the numerous orthopaedic surgeon jokes that have been cracked at many a dinner table.

"What do you call two orthopaedic surgeons looking at a chest X-ray?" A double-blind study. Laughter ensues and my anaesthetist friends playfully pat my back. It is fun hanging out and laughing with them. But stereotypes are just stereotypes and I remind them immediately about Sir John Charnley and Sir Alexander Fleming.

Nevertheless, my mind wonders about the stereotypical view of orthopaedic surgeons that some of our colleagues have. I certainly don't think it represents most of us but there must be some reason why they must think that. Sadly, I feel it's the role of technology playing the double-edged sword.

Orthopaedic surgery has progressed very much over the past thirty years with cutting edge technology, state-of-the art implants and numerous multinational companies boasting a new invention at every turn and corner. The surgeons' education is a mixture of the fundamental basic science aspects of orthopaedics and the various technological and enterprise-driven aspects of our specialty, in terms of choice of implants. It's the duty of the discerning surgeon to make a distinction between advancement and advertisement. He needs to filter through research to make his own judgement about what the best approach would be for that particular patient. This is based on the patient's particular combination of co-morbidities, social circumstances and beliefs. It's never a 'one-size fits all' approach.

A technology-oriented education by implant companies keen to promote particular implants and techniques may endanger the surgeon in becoming a high-grade technician. As orthopaedic surgeons, I feel that this is the challenge we face as technology spews out new toys for us. Our central grain of existence lies in patient-centric care and they should be at the heart of what we do or we risk losing respect among our colleagues and patients. We should embrace technological advancement but we should do it discerningly and with the patient's interests at heart.

I'm finally done with my coffee and the canteen is starting to bustle with activity. I get up to walk towards the hospital. I was going to meet my consultant for the post-take rounds of the patients who were admitted during the night.

It made me contemplate the future- the type of consultant I aspired to be. Proper case recording, constant reflections on surgeries performed and techniques used, research and regular self-audits, teaching and sharing. The list seemed to go on inexhaustibly.

At this early stage in my career, it feels daunting that there are so many challenges and aspirations to fulfill but, when I think back upon my training as an orthopaedic surgeon, I remember how well my esteemed teachers and mentors have guided me over the years. They have moulded my thoughts and character as a surgeon and a man. The wisdom imparted to me will not go wasted.

Above all, I am constantly reminded by my purpose as a doctor- being there for my patients. I remember a patient I had operated on for her wrist fracture. It was a routine operation for me, but the significance to her and her family was far more than I could appreciate. She was a sixty-year old seamstress and the sole breadwinner for her family. She progressed well post-operatively and I saw her a month after the operation in the clinic. I was happy when she handed me a card she wrote. Her hand was functioning.

The card was written in Mandarin. I can make do with basic conversational Mandarin, but when it came to reading Chinese characters, needless to say, I needed help. My clinic nurse translated the letter for me. In it, she had mentioned that I was very patient and she was very thankful that, through my work, I had given her hands and more importantly her life back to her. I was deeply moved by the tremendous impact I had, not only on her, but her family. In medicine such as in life, love and compassion transcends traditional barriers and borders. I continue to treasure this letter of thanks written in a

physical language that I cannot read, but in a language that the human spirit understands.

Orthopaedics has become deeply intertwined and entrenched in my life. Whatever life could throw at me, my early morning dates with the several seventy-year old grandmothers were a constant. Being a creature of habit, I've always felt a unique sanctity about routine. Perhaps it is just my comfort zone, a place to always go back to or a calling that speaks to me as much as I need to speak to her.

These days, I'm hoping to end my post-calls earlier, and get some rest so that I can plough through Miller's Orthopaedics in preparation for my final exams. To break the monotony at times, I read the works of Ralph Waldo Emerson, an American philosopher. One of his quotes comes to mind.

“ Science does not know its debt to imagination”.

As I think of the future of orthopaedics and its progress through research and improving patient-care, Emerson gives me optimism and hope. Leave it to your imagination my friends. Orthopaedic surgery will be what you make it to be. It is your poetry in motion.

*Nil Sine Labore.*  
(Nothing without work)