Recorded by Dr Wong Chiang Yin, Team Singapore Medical Team Leader, SingHealth Team Leader

Small Steps at the Feet of Heaven (Part I)



Recollections of a Medical Relief Worker, from 18 October to 1 November 2005, Muzaffarabad, Azad Jammu and Kashmir, Pakistan.

SEROUS INTENTIONS

Evening of 31 October 2005. I sat down on my bed after a shower and made a survey of the little cuts and bruises I had received over the last two weeks. Of noteworthy irritation was a large tense blister on the underside of my right large toe. I pinched the dehiscent skin over the blister violently to puncture it. Copious amounts of a clear serous liquid squirted out. This punctuation of sharp pain was followed by the relief of tension released from the tight blister. I exhaled, satisfied. A dab of antiseptic cream and a band-aid completed the experience.

A modest hotel in Islamabad was where the medical relief team from SingHealth and Red Cross would be holed up for a few hours before we flew back to Singapore. Another three members from Mercy Relief, which together made up our 13-member Team Singapore Medical Relief that was sent to Muzaffarabad from 18 October to 1 November 2005, were still there, handing over work to the next team led by Dr Tan Chi Chiu, who had arrived the day before with his team from Parkway.

The room was spartan but clean. More importantly, it had many amenities which I had come to value: pillows, bed, mattress, bed sheets, running water and lights. Luxuries such as airconditioning, warm water, television and a toilet seat suffused me with a sense of displacement, "What am I doing here?" It did not take long to realise that I was going back home to Singapore.

Something else gained a purchase on my mind: the high-pitched drone of the ceiling fan, which led me to fixate on the shadows that writhed with rapid regularity against the white walls. Equanimity and apathy returned once again, because these are unconditionally necessary ingredients to function well in a world

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where pain reigns and nature has destroyed just about everything else – and because the world does not need another maudlin or melodramatic contemplation by a medical relief worker on how a disaster has etched indelible scars on his psyche and changed the way he looks at the world in his remaining days on this planet. Such expositions should be the sole and unfortunate privilege of the survivors. A medical relief worker should just go, work and return. And maybe, make a record of what he has observed so that future workers may be better prepared. This is one such account.

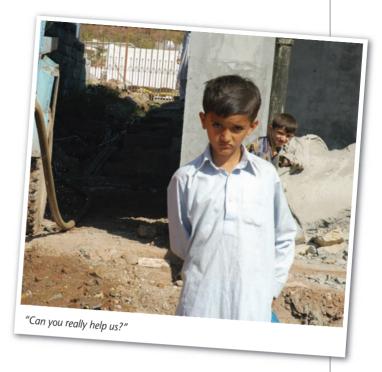
JOURNEY TO THE FEET OF HEAVEN

Our team, led by Mission Team Leader (and my classmate in NUS medical school) Iskandar Idris, arrived in Muzaffarabad (MZD) on the evening of 19 October, after a long journey that had begun on the afternoon of the previous day.

The last leg of our journey from Islamabad was by van through the Kashmir mountains; up to the picturesque town of Murree at 3000 metres above sea-level, complete with hotels, pine forests and ski chairs; then down to the devastated landscape of Nilam Valley where MZD was located about 1000 metres above sea level, in the Pakistan-administered region of Azad Jammu and Kashmir (AJK) a place that had seen three wars in the last 60 years. But the earthquake on 8 October 2005 measuring 7.6 had definitively embarrassed the collective destruction that these three wars had wrought between them. MZD, city of more than 200,000 people sitting astride the Nilam River, is capital of AJK, a region of about 4 million inhabitants. The epicentre of that quake lay somewhere between MZD (about 70% destroyed) and Balakot (90% destroyed). To date, the earthquake has displaced some 3 million people, killed 80,000 people in Pakistan and India, and deprived 500,000 people of shelter even as the harsh winter approaches.

WELCOME PARTY

The last threads of dusk's light silhouetted the roads and skyline of MZD when we arrived. We were soon saturated with the appalling aura of a city rendered undead – the sweet but repellent scent of rotting flesh and organic waste reeked everywhere; people were walking silently around, or just squatting on the





Wizened without age.

pavements amid rubble, beside roads with hideous cracks or sides seemingly chiseled off with no apparent reason. There was no electrical supply, so the street lamps remained unlit and the city was at once quiet and dark, save for the occasional flickers of light in the hills and garish headlights of oncoming vehicles. It was all strangely tranquil; a state to which we can only attribute to sheer horror in the guise of absurdity.

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We were welcomed at the campsite by the first team led by Singapore General Hospital's (SGH) Dr Fatimah Lateef; they had been there for a week and were now quite settled into work at a field hospital run by a local NGO. They had ably found a space for us to camp at the United Nations (UN) campsite compound, located within the grounds of what was the Army Public School of MZD. Besides the UN, there were also the Turkish Red Crescent and the German Dart Team, in addition to the usual UN organisations such as WHO, UNICEF, WFP, OCHA, and others.

The next morning saw us continue on our orientation process with the outgoing first team. The hospital was sited next to the Nilam River in an area called Bela Nur Shah. The hospital consisted of four large tents. We came to understand that these tents, which resembled circus tents (affectionately called 'Cirque de Soleil' tents), were commonly used for weddings in Pakistan. The entrance of the hospital was on the right end, which lay upstream. In the first tent was a sort of triage where local volunteer doctors took medical history and wrote prescriptions. Also in the same tent were the dispensary and the dressing area; the latter was where some of our doctors and nurses worked to clean and dress wounds, as well as give injections. Wounds came in all shapes, sizes and locations. Some of the most gruesome wounds were equally matched by the stoicism of many locals even as our SGH A&E Nurse Mina rose to the occasion with her deft dressing skills.

BONES OF CONTENTION

I remember an 18-year-old girl who came to us with multiple wounds running across the forehead and face. They had been closed with silk sutures a week before and the sutures were now ripe for removal. Her scalp area was also wrapped in bandage. We removed the sutures from her face. The wounds had healed but the graffiti-like scars that remained on her young face emphasised the apocalyptic savagery that she had survived on 8 October. We then removed the bandage that concealed her hair. In contrast to the thick strands of jet-black hair was an ivory-like area about 4cm by 2cm large, circumscribed by a pink border. I gave the area



a soft tap and concluded with surprising calm that this was the cranium (skull-bone) itself. The tap returned the same quality of bounce and sound as that of the skull I had toyed with in my second year of medical school under the pretense of studying anatomy so many moons ago. Because there was no way skin would spontaneously grow directly on hard bone and thus close the gaping defect, we had to refer her to Islamabad to get a skin flap. Throughout the entire process, the girl sat there in blanched torpor.

Yet another boy came with a severe infection of the index finger; he had suffered a cut during the earthquake and the finger had become increasingly infected and swollen over the last two weeks. By the time our surgeons removed the bandage and attempted a wound debridement,

the terminal phalange was more like a mottled sponge of blood, pus and blackened flesh — it auto-amputated and fell off meekly without much physical encouragement, almost like an afterthought.

In the second tent were a store area for medical supplies and some beds for male patients. The Singapore team was responsible for medical and nursing care of all inpatients in the field hospital in the daytime. These numbered 40 to 60 at any one time. Later on, we converted this bed area into an immunisation area where our nurses and local volunteers gave tetanus and measles immunisations. I remember in particular a family of 12, comprising the husband, his three wives (the last pregnant and hence was denied immunisation), and their eight children - seven girls and a boy. There was another boy, but he had perished in the quake, and you could imagine the father's anxiety over the one remaining male heir to his bloodline.

DEPARTMENT OF 'RADIATION SURGERY'

There were more male beds in the third tent, as well as a store area for general supplies such as mineral water and dried food. The last tent was where the female beds were sited, as well as our operating theatre and X-ray facilities. The X-ray machine was an old one that could only give us one view – anterior-posterior view. Nonetheless, it was good enough. The only problem was that the facility was completely unshielded and those of us who worked in the adjacent operating theatre were routinely subjected to unwanted doses of irradiation in the first week, the two facilities being separated by only a thick piece of canvas. Memories of me as a first-year MO assisting a legendary late orthopaedic surgeon in SGH 10 years ago came back. He had always refused to wear a lead suit when he worked in the theatre and subjected himself to nasty doses of X-rays whenever fluoroscopy was employed. Our portion of radiation courage today is far less sanguine than his.

The operating theatre consisted of an operating table, an anaesthetic machine and two steam sterilisers. The latter were not in working order and we achieved 'cleanliness' (not sterility!) by using a water boiler and antiseptic solutions to clean instruments. As we did not have a trained anaesthetist most of the time, anaesthesia was given using intravenous ketamine or by the administration of nerve blocks. Since the effects of ketamine were transient, our operations had to be done



in less than 15 minutes, made all the more trying by the lack of or ill-maintained instruments, less-than-optimal sutures and other environmental limitations. Our indefatigable surgical team consisted of one orthopaedic surgeon from NUH, J.K. (who had volunteered for this mission despite the fact that his wife was five months pregnant with their first child back home), one surgical trainee, Colin, and a scrub nurse, Meskiah. The operating theatre was later relocated into a container, which improved hygiene conditions for us. Later on, some American doctors of Pakistani descent used the facility as well. They were responsible for performing the caesarian sections with the assistance of Meskiah.

The four large tents were brightly coloured – red, yellow, blue and so on – which in the beginning took some getting used to. For example, everyone's conjunctiva looked pale under the red tent and such a clinical assessment was better carried out elsewhere.

'SHERATON BY THE RIVER' AND OTHER RIVERSIDE RESIDENTS

Behind these four large tents was an open area where Oxfam had dug some latrines and rubbish was thrown into a big heap. From a public health point of view, treatment of waste remained a constant challenge. Removal of the waste was irregular and waste was not segregated into biohazard waste, normal waste, radiological waste and so on. Further downstream was a military transport unit whose barracks too had been severely damaged by the earthquake.

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Fortunately, the toilet and shower facilities were still intact. The soldiers were kind enough to let only the 'expatriate staff' of the field hospital use them, notwithstanding that whenever our female members used the facilities, we inconvenienced them as the soldiers had to leave the place (being a barrack, it was essentially a male-only toilet and shower facility). These were easily some of the best toilets and showers that could be found under the circumstances and we gratefully nicknamed the place 'Sheraton'. Behind the length of the hospital was a steep slope where signs of active erosion were visible everywhere: loose soil and freshly exposed roots. We noticed one morning with helpless anxiety that a small tree had listed more than another 20 degrees towards the horizontal.

Between the hospital and the river lay a narrow strip of land where a road ran. The river bank between the road and the rushing Nilam River was the site of an IDP campsite that housed several hundred people in tents. ('Refugees' is a term reserved for cross-border movement of people, whereas 'Internally Displaced People' or IDP was the term used here as these were Pakistanis displaced from their own homes in their homeland.) We were concerned that the IDP site was dangerously sited in view of the possibility of flash floods but were reassured that this was extremely unlikely as it was late autumn and the Nilam River was relatively tame. I may add that to us Singaporeans used to calling the Singapore River a 'river', the Nilam river appeared tumescent and torrential, like a rejected libation angrily cast from the heavens, with an earthquake or two thrown in for good measure. On some days, a fine mist rose from the river in the afternoons, and cast a further pall over the landscape.

The first team left after two days of us being there and before long, we had settled into a routine of sorts.

Each morning after breakfast in the camp, Iskandar and I would attend the WHO daily briefing held nearby, while the rest of the medical team went to the field hospital to begin their ward rounds and our logistician, Hui Yong, remained behind to tend to administrative and logistic matters. The WHO briefing gathered representatives of medical relief teams both from Pakistan and abroad, and it was chaired by a very senior military doctor. It was a valuable time for

information-gathering and interaction, and it was here that we first learnt about upcoming weather conditions and fresh communicable disease outbreaks.

THE WILL TO WEATHER

During the 21 October briefing, we learnt that rains were to be expected the following week. This piece of information had caused much concern amongst the Singapore delegation because we had arrived without proper winterised tents. Our tents were probably akin to what the Changi Beach squatters used - hardly a worthy response to nights in the foothills of the Western Himalayan Range where temperatures can drop to 5°C even when there is no rain. The meteorological report was fortuitously inaccurate and in our two-week stay there, we only experienced a slight drizzle on the night of 25 October when all signs had pointed to a downpour the evening had been unusually warm as large clouds filled the otherwise clear skies in the day and trapped the heat rising from the ground. In the night, we could see flashes of lightning illuminate the sky in the north and hear the ominous rumble of distant thunder (towards the north, it was raining heavily on earthquakestricken Balakot). We sat around the fire waiting in dread for the downpour that never came.

However, our neighbours achieved what the weather did not – on the evening of 27 October, a bulldozer belonging to one of the NGOs camping upslope to us accidentally broke a large water pipe. Water gushed down-slope wantonly, transforming our sandy campsite grounds into a mass of coffee-coloured mud. Fortunately, volunteers from our NGO hosts had earlier dug little drains around our tents and the interior stayed dry despite the chaos reigning outside.

Even though the rain clouds avoided us, the widely fluctuating temperatures of MZD proved to be one of the greatest difficulties we faced. In mid-day, temperatures soared to the twenties as the torrid sun seared the earth relentlessly. Temperatures begin to drop at about 4pm, culminating in bone-racking chill at night. It would be a misrepresentation to describe the cold as merely teeth-clattering. Even when we lay in our well-insulated sleeping bags, dressed in sweaters, woolen socks, winter caps and gloves, the cold seeped through insidiously. The sensation in the ears and extremities was more akin to a continuously numbing yet painful electric current being passed through. Humidity also

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fluctuated from being dry in the day to dour and damp at night.

All of this made the quality of our tents paramount. Our first tents were replaced by tents given to us by our NGO hosts. They were actually worse than our bought-in-Singapore tents. Considerable condensation appeared on the insides of the tents in the middle of the night such that it dripped inside the tents. The entrance for the tent was also not sufficiently covered and sand blew in from the entrance to the far side of the tent. To top it off, one of the tents was an unmanly luminous pink while another was lipstick-red. This was hardly the colour scheme to adopt in the UN campsite, where other occupants were comfortably ensconced in either thick military-type green tents like the Turkish Red Crescent or the white Rofi tents. The latter, used by UN staff, were probably the Rolls-Royces of tents. They were heated, had chimneys, lighting, wooden floors, IKEA-type furniture and came with windows. We could only look upon them with envy. Our tent situation was only addressed when one of us managed through personal contacts to obtain two military-grade heavy canvas

tents from the local authorities. Until then, visions akin to the German 6th Army in the siege of Stalingrad came to me – more Germans were killed by the cold than by Russians.

The weather got colder as the days wore by. On the morning of 27 October, we thawed and awoke to see the first rays of a tangerine sun pierce the morning fog to reveal that a nearby mountain had become snow-capped over the night: a majestic sight befitting Himalayan folklore.

On yet another morning, we had absentmindedly left a bag of seedless grapes, which we had bought from the street market, overnight in the open outside our tents. We found the grapes had a crackling crunch when we ate them – the pulp of the grapes had been infiltrated with speckles of ice. If only we were next to the Mosel and not Nilam River, I would have speculated that these grapes may have been decent raw material for ice wine.

Part 2 of Small Steps at the Feet of Heaven will be published in the December 2005 issue of SMA News.

