



INDIA

2010-10-24: I'm back in India after 15 years. Much has changed, but most has not. Cows still roam the streets unafraid, bikes have been largely replaced by motorbikes, there's more smog, and now everyone has a mobile phone.

I'm traveling with a group sponsored by Sahaita, a nonprofit charity that provides medical care to rural people and supports two orphanages and a home for the destitute and abandoned. It was founded by an ophthalmologist in

Ludhiana who does free cataract surgeries and expanded to include medical clinics when it was apparent that many of his patients suffered from diabetes, hypertension and other serious ailments.

Our team of doctors (me and Harkesh), PA (JJ), nurses (Catherine and Maxine), a photographer (Arjot), and translators (Sammy, Poonam and Gurmeet) loaded our gear into the travel van, where we would spend many, many, many hours together over the next two weeks, and drove into Rajasthan.



2010-10-26: Our first clinic was in Alwar, a small town in Rajasthan where there is a community of Sikhs that once were prosperous about 200 years ago when they were skilled artisans, making all types of iron-related goods, including firearms, for the local Rajahs. Over time they became impoverished and now they are beset

not only by poor income and religious discrimination but also the ills that accompany them including depression, anxiety, suicide and alcoholism.



When we arrived at the small gurdwara (Sikh temple), the organizers had set up a tent out front to hold the waiting patients, and there was a small alcove which we used as our examining rooms. The entire area was about 15x40 feet and covered by a corrugated iron roof, and they had formed five cubicles using tent material. It was beginning to get warm so they jerry-rigged a set of large fans into one wire feeding an

electrical bulb --- live wires everywhere and shortly one of them began to smoke. They somehow got them sorted out and the fans created a mild breeze, but the noise was nearly not worth it. The building was immediately adjacent to a railway line so we were subjected to frequent rumbling and blowing of horns, which made it even more difficult to hear the patient and the translator, much less the lung or heart exam.

By about 10am we began seeing patients, who had been first screened for blood pressure and diabetes, then triaged to our



physician's assistant JJ Nicholas for joint injections (very popular among this population with lots of degenerative arthritis) or to the other clinicians for everything else. Harkesh and I were assisted for a few hours by a local ENT doctor and a local general practitioner.

I worked with Gurmeet Singh, an electrical engineer who lives in Castro Valley, who proved to be my translator from heaven. He quickly learned my routine of questioning for complaints such as fever ("Headache? Runny nose? Chills? Cough with sputum? Is it bloody? Diarrhea? Is it bloody?" and so on). He began doing a mini-history then turning to me with the pertinent positives and negatives. He instructed patients on how to use asthma inhalers. He also ran interference with the oddball requests ("Doctor, I want something to make me taller," and "Doctor, can you give me eye drops that will improve my vision?")



We soon had a line of patients waiting outside each cubicle. I wish I had stopped and taken a photo: the patient in the chair next to me, the next patient (having slowly inched into the room from the tent flap) squatting on the floor listening intently, followed by the next 4-6 patients closely lined up behind, watching me and the patient. Patient privacy issues are obviously seen a bit differently here. I expected to start getting opinions from the observation gallery, but all waited patiently for their turn without comment.



At about 2pm one of the volunteers poked his head into my cubicle and said that it was time to stop for lunch. We had a quick lunch across the street in a tented off alley --- chapattis, dhal, vegetable subji --- and then went back to work.

At about 6pm Gurmeet and I were nearly hoarse from trying to speak to each other and to the patients over the din of the fans and the trains. But there were still a few people to be seen. Harkesh poked his head in and said, too bad, we've got to go next door for an event at the Gurdwara, tell the patients sorry.

We quickly saw 3 more then quit.

Next door, the girls' youth choir from the gurdwara was singing, accompanied by harmonium and tabla, and the place was filled with many of the people and their families that we had helped that day. It was quite moving. Children walking by and touching their hands to my shoulder bag on the floor and then to their foreheads (a sign of reverence).

In all, we saw 358 patients in about 7 hours. "Team Kent and Gurmeet" saw about 70 of them. A couple of cases of presumed malaria, some ascariasis (intestinal worms), lots of hypertension and diabetes (mostly Type II/adult onset but I diagnosed one child with new onset Type I diabetes), a few pneumonias, a fair amount of asthma and dust-induced rhinitis, a case of biliary colic, one of atrial fibrillation, some alcoholics, plenty of anemia (well, presumed --- based on inspection of fingernail beds and



tarsal conjunctivae), and almost everyone with some variation on gastritis and/or peptic ulcer. Whew! I asked Harkesh if this camp was typical of our clinics, and he replied, "Well, we usually see closer to 500 patients!"

We left Alwar at 6:30pm in our van to drive to Jaipur, where we'll rest up before heading back to Delhi. The drive was butt-crunching --- 3 and a half hours on a back road through the jungle (including a tiger sanctuary) that was half-road and half pothole most of the way. No, make that 90% pothole for a good 10-km segment in the middle where the vehicle lurched and groaned and I wondered what it would be like to try and change a flat tire or deal with a broken axle in the middle of a tiger sanctuary!

2010-10-28: Early morning drive to Ludhiana which took about 6 hours. Stopped at a roadside restaurant ("Punjabi Dhaba") and feasted on fresh paranthas, white freshly whipped butter, and vegetable dumplings in yogurt. I have not been able to resist chai so I limit myself to ½ cup at a time. We arrived in Ludhiana to meet Dr Rajinder, the India leg of the Sahaita tripod (US, Canada, and India). He is an eye surgeon with a busy local practice who volunteers his time for the orphanage and also does free cataract surgeries at a rate of about 30 per week.



The guest house in Ludhiana is big, old and basic. The main attraction is screens on all the windows, which keep out the mosquitoes. Otherwise, it's lacking: lacking electricity except for the bathroom light; lacking sheets on the bed (rustled up one and folded it in half to serve as an under and over cover); lacking a pillow (found one thin one in a spare bedroom).



We washed up and went out to a special event at the orphanage that Sahaita sponsors. There are about 80 kids at the orphanage. They looked so cute waiting politely in their chairs throughout the ceremony, some of them clearly as young as 4-5 years old. They were found abandoned on the street or were left at the

orphanage's back door, and (surprise) they are not all girls -- I'd guess about 40% boys. They sang and danced so well, and from the cheerful smiles on their faces and their enthusiastic greetings they seem pretty happy here. A bunch of girls asked me to sign their lesson books and then started peppering me with questions: "How many children you have?" "What are their age?" "What is their name?" and so on. They whispered among themselves and giggled like pre-teens anywhere.



Back at "Baghdad Guest House" there was still no power to the lights so I showered (well, washed under the running cold water tap) and went to bed --- turned off the ceiling fan because it was creaking so loud I feared it might come off its hinges and land on me during the night. If you are wondering how the fan worked if the lights didn't, it's because the power here is so spotty they have the house specially wired

so that essential circuits (eg, the fans) stay on because they are hooked up to an inverter/battery storage system that provides limited power during outages.

2010-10-29: Up early for toasted “double-roti” (American white bread) and omelets and chai cooked by the servant girls who run the guest house. There is no owner or manager anywhere in sight. The girls look blankly at our request for more sheets and towels. Well, at least the place is pretty clean.

We met up with an elderly sardarji and he guided our van out into the fields about 5 miles through several small villages (almost all brick/masonry homes, now --- I didn't see a mud hut anywhere) to a rather large house / small estate in one of the villages that is actually a “full-service” hospital with an ER (1 bed), an ambulance, an OR and recovery room, an ICU (2 beds) a medical ward (8 beds each for men and women), a lab (basic chemistry panel, CBC, UA), x-ray, library/reading room, pharmacy, canteen, and even an exercise room with several weight machines. There is a doctor on duty 24/7 and they see about 120 patients per day and assist in 1-2 births daily It turns out the gentle, quiet old man in kurta-pajama and long flowing gray beard guiding us is the owner (it



was his house at one time, he redesigned and expanded it into the hospital) and manager. He was a wealthy landowner/farmer living in this village; his wife developed cancer and later died from it. During her medical journey he became aware of the hassle and expense of common village folk having to go into town to see a doctor, and decided to create this hospital for his community. He charges nothing for the medical consultations but patients are expected to pay for their prescriptions if they can afford it, otherwise he gives it to them free.

He brought us in to the canteen for some breakfast (we had already eaten, but hey so what?) of authentic fresh prosperous villager food: corn paranthas (mukki-roti) stuffed with chilies, a homemade chutney, yogurt, and lasse (yogurt milk) from his buffalo next door.

Stuffed, we moved on to a small clinic where we prepared to see a couple of hundred patients over the next 5-6 hours. The medicine is not too difficult, although it'd be nice to have: more time with each patient (I'm averaging 5-6 min); some basic labs; a larger pharmacy (eg, we had no inhaled steroids) and more drug names I recognize (eg, Asthalin?); and follow-up to see if what I thought I was treating actually got better. Oh, well --- we are thinking of ways we can improve the care delivery and the follow-up system.



2010-10-30: Got an early start, driving south about 1 hour into the rural villages. Were taken to breakfast at the



village home of one of the Sahaita volunteers (Sikandar Singh) --- a very nice 2-story cement structure with a marble-floored sitting room and full kitchen, plus outside a small dairy area with 3 buffalo munching away. Great breakfast of mukki-roti, omelettes, burfi and chai. Then we went to the "camp" where we would spend the next two days seeing patients --- a kind of guest house for visitors to the gurdwara, with bedrooms surrounding a large dirt yard. We first went to the Gurdwara next door where a ceremony was in progress, after which we received halvah as a blessing and went back to the camp to get started. This was our busiest day yet ---

over 500 patients in about 7 hours, non-stop as there was no time to break for lunch. I saw the usual variety of seekers of second opinions from the American doctors, but also a large goiter with symptoms of hypothyroidism (probably iodine-deficient); a man with a large buttock abscess that needed draining (we had no scalpel so I used a pair of scissors and plenty of lidocaine); a man who arrived by ambulance and I was called out to deal with an "emergency" only to discover that the injury had occurred over 3 months ago (he had been badly injured while working in Madras, required a lower leg amputation and had a broken wrist that healed poorly despite a cast). He wanted an opinion about what to do with the poorly healed wrist. There wasn't much to say other than to go to a full service hospital where x-rays could be taken and an orthopedist consulted. We did give him alprazolam for severe anxiety (prob PTSD) and some analgesics. One humorous incident involved an elderly man who was brought into the exam room palanquin-style in a plastic deck chair by two family members --- I was still seeing another patient in front of him, so he just sat and watched and listened as I went through my exam.



We did get the lead screening started, as well as a hemoglobin test, and it was nice to be able to check people with pallor and fatigue for anemia and lead poisoning. No cases of elevated blood lead levels yet.

The farmers are hauling in their ample rice crop --- banging sheaves of dried stalks against stone to release the rice grains. Piles and piles of sacks of rice everywhere. The harvested fields are then burned to prepare the ground for the winter wheat crop, which goes in next. Although there is now a law against burring (pollution

control) no one seems to obey. The air is thick with smoke and haze from the burning and of course we have lots of patients with cough, wheezing, burning eyes, etc.

2010-10-31: Slept at Sikandar Singh's nice house in the village in a big room with marble floors, 10 foot ceiling, quiet ceiling fan, and a shower (although no hot water --- I'm getting used to the refreshing chill of a quick cold wash of the essential body parts). Woke up about 5am to the sound of singing from the Gurdwara, and then I heard the competing voice of what sounded like a muezzin (I thought I heard

“Allahu Akbar...” but wasn’t sure). Punjab is about 5% Muslim, so perhaps there is a mosque in this village or a nearby one?

I asked Sikandar about it --- he said yes, there was a mosque here but it fell into disrepair after India’s violent partition in 1947. Many muslims in this village were killed, although his family sheltered some of them. In recent years the mosque was rebuilt with funds from the local Sikh temple at the urging of its resident holy man, based on the belief that all religions have the right to pray here.



The camp today was even busier than yesterday. I worked 9 straight hours and saw 126 patients! They included two boys with seizures (one of them with cerebral palsy); a man with untreated atrial fibrillation; a woman with end-stage emphysema; a 10 year old girl with some type of serous developmental disability; a 4 year old boy with pneumonia; a 14 year old girl with juvenile rheumatoid arthritis; and many others. Despite the

crushing numbers of patients, it was actually invigorating and very satisfying to care for so many thankful people who otherwise have such difficulty accessing medical care.



We were invited to have dinner at the Gurdwara, where we sat on the floor and were served rice, dhal, subji, chapattis, kheer and burfi. An attendant ladled what looked like at least a cupful of warm ghee over the subji and dhal, just in case it didn’t slide down easy enough!

2010-11-1: We were on the road at 9am, heading North of Ludhiana to a charity house that is sponsored by Sahaita.

There are about 140 residents, men and woman of all ages, who are brought here after being found on the streets or in a railway station, abandoned by family and friends. Some are babies left in a little metal cradle outside the gate. They appeared to be largely comprised of people with schizophrenia, severe autism, mental retardation, and other castaways of society. There was a retired schoolteacher who was abandoned by her family after a stroke left her with incoordination and an expressive speech

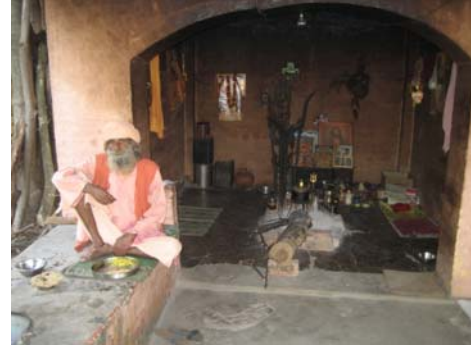


disorder. These desperate people are taken in, washed and fed, and provided with medications if needed (many have epilepsy, many more have chronic psychosis) and in some cases they are successfully reunited with their families after a period of rehabilitation. It was heartbreaking to see these helpless people, but they appeared happy and healthy and I was so thankful they have a caring place to be looked after. I



saw a number of patients, including one who had a seizure while getting his BP checked, which caused a few facial lacerations.

2010-11-02: We drove into Himachal Pradesh, in the Himalayan foothills. Nawal Kishore is currently the CFO of Sahaita. Twenty two years ago he was working with Dr Rajinder when he got the idea to start an eye clinic for the poor in his home district of Chennore. Dr Rajinder has been doing a free eye clinic there every year since then. Those patients who need surgery are then scheduled to come to Ludhiana for free eye surgery. About six years ago they added general medical clinics.



We wound up the steep roads for about 6 hours into the foothills, stopping to see several very old Hindu temples along the way, some purported to be several thousand years old, from the time of the mythical Pandavas (of the “Mahabharata” saga). One of them consisted of several small buildings, just big enough for a person to sit in, which is what many sadhus have done over the centuries, meditating in a yoga posture for months or years on end.

The mountain road became progressively narrower until it was essentially one lane with some dirt on each side allowing cars and trucks to pass each other. Although dusty and hazy, the scenery is beautiful:



thick clumps of golden-red lantana everywhere, growing like weeds; multiple layers of hillsides stretching off into the distance; little towns at intersections with chai stalls; friendly people (lots of school kids). We stopped for tea in one little hamlet, and found a shoe cobbler at work making and repairing shoes with the simplest of equipment.

We stayed overnight in a hotel on the banks of the Beas River (one of the five rivers of Punjab), which is broad and beautiful here, about 30 miles from Dharmasala (where the Dalai Lama lives). After dinner, Harkesh and I walked

across the bridge for some fresh air, a harrowing feat given that trucks and buses and cars zoom along paying little attention to pedestrians.

Harkesh told me a story that helps explain his zeal for service to others. When he was ten years old, he and a classmate (Prabjeet) were the two top students in their class. They both wanted to become doctors; Prabjeet was going to be a brain surgeon. One day he stopped coming to school. Harkesh found out where he lived and went to ask why he had stopped going to school. The boy’s father had died after a long illness, and he had to quit school and find work to support his family. So, Prabjeet would not be able to achieve his dream of completing his education and becoming a doctor. Harkesh tried to convince him to return to school, but this was just not



possible. The boy asked him to promise just one thing: that once Harkesh had become successful, if he ever found a child who was smart and wanted to attend school but couldn't because of financial difficulties, would he please help that child achieve his dreams? Last week at the orphanage Harkesh introduced four children that he had found selling sweets in the street instead of going to school because they couldn't afford the books, and he had arranged for Sahaita to support their education. He has been working with orphanages for the past 22 years, to help abandoned children get the love and education they need.

2010-11-03: Awoke at about 5:30am and took a cold bucket bath, then went out for an early morning walk across the bridge over the Beas river. There was a layer of mist over the water, and a few fishing boats, and a pink hue in the sky suggested that dawn was not far off. The sounds of devotional songs echoed from the Hanuman temple on the other side of the river.



After breakfast we drove to the health camp, held in a small community center in one of the mountain villages. We saw about 400 people. Many of the



patients I saw with significant hypertension had been previously diagnosed and treated, but could not afford to continue filling their BP medicine, so were taking it on an "as needed" basis. Same story with drugs for diabetes --- I saw a few patients with sugars in the 300-500 range who just needed to get back on their regimen. This is a serious challenge for Sahaita, to try and figure out a way to follow-up the patients' response to treatment, so that dosing adjustments

can be made, and to insure that patients can afford to stay on their medicines.



We had a tasty home-made lunch at the home of one of the villagers: very simple and authentic local food including a creamy subji made with corn and yogurt, and corn chapattis with saag (spinach) curry.



A long drive out of the mountains brought us to the Golden Temple in Amritsar, beautifully lit up at night, and with live singing, accompanied by table and harmonium, coming from the central part of the temple and carried through loudspeakers throughout the complex. We walked slowly around the perimeter listening to the mesmerizing music. It was as magical as I remember it from my first visit there 50 or so years ago.

2010-11-04: We drove to Pheruman village today, a little ways outside of Amritsar. We had a nice

breakfast of stuffed paranthas made over an open fire in the back yard of a nice home, with fresh yogurt to wash them down. The buffalo sat quietly chewing its cud and watching us enjoy its produce.

We walked over to the community center to get the medical camp organized. Soon we were seeing hordes of patients, who quickly undid each line we established, trying to pass one another and edge their way to the front.



Gurmeet had to tell the beehive of buzzing patients that I would stop seeing them until they reorganized into a line, which worked . . . for about 4 minutes. Finally, I gave up and just saw the patients as fast as possible and tried to ignore the chaos. We worked through lunch and ended up finishing the last patient as we ran out of daylight 7 hours later, having seen about 120 patients. Lots and lots of poorly controlled hypertension and diabetes. One man in his 40's had a headache, flushed face, and a blood pressure of 240/140! In the US we would have labeled him a hypertensive emergency and admitted him to an ICU. Here, we gave him an oral dose of



amlodipine and had him come back an hour later, at which time he was improving a little. I don't know if he'll respond to the doses of the medicine regimen I am giving him, or if he'll be able to afford ongoing treatment anyway, but if he doesn't he's bound to have a stroke.

Whenever possible, I sent patients home to get their routine medicines and bring them back to me to identify --- this was very illuminating: one lady returned with her purported "blood pressure" medicine which turned out to be a sedative for anxiety (alprazolam).

We were invited over for snacks and tea at the home of the well-to-do landowner that had served us breakfast. He is a giant muscular elderly Sikh with a full white beard, a giant chest, massive arms and a hearty temperament. He would have been a fearsome warrior in the old days.

2010-11-05: Diwali: no clinics today so Harkesh took me to visit his ancestral village, where he was born and spent his youth. His uncle still lives there. At one time they farmed 30 acres, but they have sold off most of it. It is a very nice, neat brick and mortar home with two buffalo (nice fresh hot milk and cool yogurt) and a quiet patio.

Later, with the whole medical team, we visited another one of the orphanages that Sahaita sponsors. We had previously visited Bal Bhavan on our first evening in Ludhiana; it houses about 80 children and is run in conjunction with the Red Cross. The other orphanage (Bal Garh) is about 20 miles out of



town in a village area, very quiet and peaceful, and looks after about 50 children. They are so cute and happy, playful, and they look out for one another. The stories are heart-breaking: left in the cradle outside the orphanage, or dumped in the river, or found in a railway station. But they are cared for lovingly and they are remarkably resilient. I nearly signed up to bring about 6 of them home with me! At about 3 pm they fed us piles of fresh pakoras, which we hungrily devoured thinking this would serve for lunch and dinner. Not so --- an hour later they had a whole meal laid out for us!



2010-11-07: After tea and toast we packed up the medicine boxes (about 12 of them) and headed for the medical camp in Khumano, near Chandigarh. On the road, Harkesh talked to one of the local organizers on his mobile phone and reported that over a thousand patients were waiting for us! We arrived at 10am to discover a vast crowd of anxious patients swarming around the narrow entrance to the clinic building. Luckily, the local organizers included a number of swarthy Sikh volunteers who serve as pretty effective bouncers. But inside we discovered a complete lack of planning with no place for triage and vital signs. Within a short period of time there was a mass



of patients outside my examining room door, and at this point one of our interpreter volunteers ran in and said, "Doctor Kent, you've got to come see a patient on a stretcher downstairs!" It was a young man who had fractured his lower leg in a motor vehicle accident 2 months ago (from my exam probably both tibia and fibula) but had received no x-rays or treatment other than a

decomposing plaster splint running from behind the knee to just above the ankle, tied with cloth strips. The bones moved under my examining fingers, indicating a non-healed fracture. Worse yet, there was a 3 cm scabbed wound overlying the shin, indicating that this had likely been an open fracture and undoubtedly there was an osteomyelitis (bone infection) underneath. There was nothing we could do at the camp, so we sent him to the government hospital.

Other patients included a woman whose story of episodic palpitations suggested PSVT, a 60 year old with aortic stenosis, a 40 year old with mitral regurgitation and aortic stenosis likely due to rheumatic heart disease, and several poorly controlled asthmatics, including one who was getting the following combination drug for hypertension: propranolol + alprazolam! Indian drug companies love combination pills, with all kinds of interesting match-ups (another patient I saw was on fluoxetine + alprazolam), especially



ones containing alprazolam --- everyone here seems to suffer from chronic anxiety and sleeplessness.

2010-11-07: We had our last medical camp today, in a village called Dhamot. Very rural but with a nice cement clinic building. We were very short-staffed: just me, Harkesh and Dr Arshad, a local physician, and Poonam and Arjot working triage obtaining BPs, blood sugars, and blood lead levels. Sammy, Catherine, Maxine, and JJ all had to leave yesterday.

The patients were mostly hardy farmers --- one skinny 80 year old bragged he had just finished harvesting his rice, which is very labor-intensive on-your-haunches kind of work. He had no complaints, just wanted a check-up and "maybe something for anxiety."

Less hypertension and diabetes in this group, and more aches and pains of aging. Most of the older people in rural Punjab are bow-legged from years of squatting, and their knee joints make a gritty rasp as you move them through their range of motion.



2010-11-08: I left Harkesh and the Sahaita team and drove to Chandigarh, where I spent the next morning in the Emergency Department at the Postgraduate Institute of Medical Education & Research --- doing rounds with Dr. Navneet Sharma, one of the two consultant (attending) physicians for this busy service. Dr. Sharma is about 45 years old and was trained as an internist. It is quite remarkable to watch him at work --- he has vast bedside clinical experience and skillfully supervised the residents who presented the case after case to him. The ED is astonishing: packed wards, gurney to gurney, with

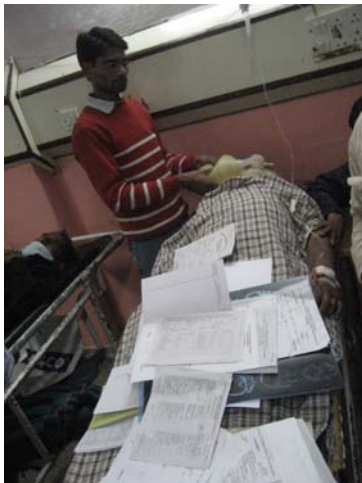


the patient attended to by his family with a little help from the 1-2 nurses for 30 patients in each ward. The family is the keeper of the medical records, which are notes stapled together including bits and pieces of lab data, reports from other hospitals, and even the x-rays and CT scans. I don't know what the poor patient with no family in attendance does.

Dr. Sharma took me to the ED Dengue Ward, where they have about 20 patients with varying

severity of Dengue, a mosquito-borne viral infection. I saw all the usual complications, including microvascular hemorrhagic rash, peripheral edema and pulmonary edema due to capillary leak, platelet counts in the 20-40,000 range, and a patient on a ventilator who had experienced Dengue Hemorrhagic Shock and who had a cardiac arrest and died while we were rounding. In the ED, I saw several cases of encephalitis, advanced liver disease (alcoholic and idiopathic), pneumonia, seizures, brain metastases with hemiparesis, acute renal failure, advanced lung disease, diabetics with sepsis, diffuse scabies, emphysematous pyelonephritis, GI bleeding, and too many other diagnoses to remember. I saw a man recovering from some type of intoxication (probably a mixed organophosphorus pesticide and 2,4-D). All of this within a 2- hour visit.

2010-11-09: On morning rounds we saw an 18 year old woman who had ingested dichlorvos (an organophosphate pesticide) who presented with pinpoint pupils but also severe and intractable hypotension, which my host Dr. Surjit Singh thought was probably due to co-ingestion of aluminum phosphide, a rodenticide that is a popular method of suicide here. Surjit has collected about 700 cases of aluminum phosphide poisoning over the past 20 years, and is the world's expert on the substance. This poisoning has a mortality rate of over 50% despite intensive supportive care. Surjit recently convinced the government to require manufacturers of this fumigating agent to change the way it is packaged to reduce poisoning: previously it was sold in tablets, which slowly release phosphine gas on contact with the air, and the tablets can be easily swallowed causing severe systemic toxicity. He had them change to a granular powder formulation, sealed in individual packets, that rapidly dissipates into the air when the packet is torn open, making it much harder to swallow a significant quantity. Surjit said that as a result of this new formulation, the number of phosphide poisonings has decreased.



2010-11-10: I met up with Dr Sharma and Surjit, and rounded on their ED intensive care patients, who included 2 patients with dengue; a very sick man with pancreatitis and hypotension; a case of cerebral malaria; encephalitis; and two strokes. We also saw a man with an unknown snakebite who had only some mild swelling of the arm.

The baddest snake around here is the krait, which causes severe muscle weakness to the point of respiratory paralysis: as long as the patient can be supported on a ventilator for a couple of days they will survive. However, the hospital has a very limited number of ventilators, so it was very common (I saw at least a dozen cases) to have a family member at the bedside of the intubated patient, manually ventilating them with an Ambu bag.

In the evening, Surjit invited me to accompany his family to a typical Punjabi wedding: it was held in one of several "wedding palaces" that dot the suburban landscape outside of Chandigarh. No more Shamiyanas draped across the street between houses like the old days --- these are grand indoor-outdoor event estates that specialize in gigantic weddings. This was an outdoor affair, the weather being very pleasant, and it took place in a grassy 3-4 acre area with armies of servants bearing finger food snacks on trays, a huge booze tent serving every form of hard and soft liquor, and arcades of cooking stations along the perimeter of the party area, each with a team of chefs serving up a specialty such as alu tikka (potato pancakes deep fried



in butter --- oh, my arteries!); pani puri (small puris filled with a cool lime juice); kulcha (stuffed fried bread); masala dosa (rice crepes), and kulfi (ice milk) from an ice-cold rolling drum (like the meat that gyros are made from) with frozen fruit and nuts, scraped off into serving cups. I stuffed myself before I realized these were only the appetizers: suddenly we were called to dinner, with more food stations serving huge buffets of various styles: Indian; Amritsari; French; Italian; etc. Each buffet was manned by cooks making fresh tandoori rotis or pesto pasta, etc. Now, guess how many guests there were mowing through all this food: over a thousand! It was a nothing short of a grand spectacle. I can't imagine what it cost the bride's family.

2010-11-15: Now in Hyderabad, where I visited the GVK Emergency Medicine Research Institute (EMRI). It is quite an operation: they provide training for EMTs, first responders, MDs, and nurses throughout India, and run a 24/7 massive ambulance dispatch center for AP. They receive 3,000 medical calls per day, of which about 1/3 involve obstetrical emergencies, and 5-6% are suicidal poisoning. There are 5-8 doctors on duty as emergency response center physicians, who provide consultations to the EMTs on scene. The computer system is highly integrated with the



telephones, and includes a second screen displaying a map that locates the patient and the 5 nearest ambulances.

The ambulances are "Travelers" --- the same van that we used for our Sahaita medical camp trips through Punjab. Well-outfitted for local conditions: they are rugged narrow vans with good suspension that can take the punishing roads. There are now 750 of these in Andhra Pradesh.

VIETNAM

2010-11-17: Arrived in Hanoi yesterday for the Asia-Pacific Association of Medical Toxicologists meeting. Hanoi is a bustling city with even more motorcycles and scooters than India, with a similar approach to driving (ie, anything goes). I am staying in a 5-star hotel (Swiss owners) and after weeks of bucket baths this is the very lap of luxury: AC, down comforter, and a hot shower drenching me from a ceiling outlet.

The conference is being held at the Bach Mai Hospital, which has been in existence since 1912. It was partially destroyed by US bombing during the "war of liberation" and there are pictures in the lobby of its rubble, Ho Chi Minh's visit to rally the staff, and rebuilding. The APAMT conference has about 300 registrants from all over the world, including Iran, India, Sri Lanka, Bangladesh, Thailand, Malaysia, Singapore, Vietnam, Hong Kong, Taiwan, Australia, and the US.

We were treated to a fantastic dinner with traditional Vietnamese music (one of the instruments has a single string which is plucked while holding the side of the hand against the string at various lengths to change the resonant note, and a handle that does the wa-wa like Jimi Hendrix) and dance. The restaurant was a giant room with numerous stations serving up over 200 different hot and cold dishes, from noodles to tiny fried crabs to squid and lobster soup and too many other delicious dishes to remember.



2010-11-19: I skipped the last day of the meeting and took a tour of Halong Bay. It began with a three hour drive south through the countryside, past hamlets and paddy fields. Like India, the old mud huts have been replaced with brick and mortar homes. These are taller (3 stores) and narrower. Unlike India, shops are fronted by sidewalks instead of dirt, and the street pavement goes right up to them. There are no cows or stray dogs. There is plenty of dust, but very little trash littering the streets. In India we passed people on bikes with metal cages full of live chickens. Here, we passed a woman on a motorbike with a large wicker basket carrying 5-6 medium-sized live pink pigs!



Kent Olson
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