Paediatric Surgery Outreach

The past, the present and the future

Papua New Guinea

Report to the Minister of Health

21st July - August 3rd 2019

kind cuts for kids

Introduction

Since 1993, when those Kind Cuts for Kids first became involved in training in PNG Paediatric Surgery, the progress of the speciality has been hampered, more by vested-interest interference than either a lack of resources or PNG skill; certainly, there has been a lack of focus on the empowerment of the local surgeons, and a deficiency of quality assurance.

The background is an important source of insight into the current problem. In 1993, under one of the many programs providing medical aid from Australia to PNG, Paediatric surgery commenced, which was headed by myself. The recommendations for the late 1990's included the development of a local certification, and funding of outreach visits by PNG surgeons.

The certification was undermined because a candidate, who I judged was not of an adequate standard, was awarded the degree; also, there was refusal, of one of the Australian-contingent, to participate in changes to the missions; changes that would have empowered participation of local surgeons to lead in-country outreach.

The predominance of bullying, and a failure of the College of Surgeons to provide support for one of its members, prevented on-going KCFK's visits to PNG under the College banner; behaviour that was regarded as, and complained of, as being bullying: a culture that persists.

Subsequently, adverse events occurred during an RACS visit to Alotau, and it was stated by many that there were issues of quality of care in other centres in PNG Paediatric Surgery. Certainly, there had been no process to ensure that procedures across the country would be performed to a standard through an expectation of communication by less experience surgeons with those who have more Paediatric Surgery expertise: Failed colostomy formation is a good example of system-wide lack of progress.

Because of the adverse events in Alotau, KCFK's was, therefore, invited by the Rabaul and Alotau teams independent of the RACS process; those trips resulted in insight into underperformance, which was reported to, first, the Australian surgeon, then the PNG medical board. The response from the medical board was personalised and personality-based and not about the concerns about quality assurance; it would appear that there was no appropriate process response. The root cause of the failure of Paediatric Surgery progress is a culture of bullying that seems to have been imposed on PNG.

The future for PNG Paediatric surgery will be much brighter if all stake-holders are expected to collaborate constructively, be patient focused and quality committed; and if there is a teared system of accreditation developed, formulated on a country-wide review. All visitors should have to collaborate with the local teams, and local teams should have to collaborate with each-other.

Kind Cuts for Kids 2019 Summary

A visit of the Kind Cuts for Team followed the invitation from the Minister, and has involved two centres, Lae and Rabaul, and included surgeons from a total of five centres, and patients from a similar number of locations, but not all the same locations. Donations of disposable equipment assisted the surgical outcomes.

Two important functions during the visit were to provide the treating surgeons of the ***database*** of cases at the end of the visit, and provide all ***images of the patients***, their investigations and operations as a source of information for future care, and provide surgeons with images that reminded them of the procedures, thus adding to the information available to empowering them when ***operating*** on future cases ***independently***.

Lae, ANGAU Hospital

The theatre in ***Lae*** is reasonably well equiped; particuarly, the lights are excellent – the photo below is from the theatre. There is, however, a lack of fine suture material and the surgical instruments are relatively poor. The cooperation of the staff is excellent. That betadine solution is not available in adequate quantities is of significant concern.

The hospital is currently undergoing major reconstruction, a project that was discussed with the hospital CEO during the visit: the rebuild will enhance the ability of the centre to be a major contributor to the development of Paediatric surgery, which it has already been through the previous appointment of PNG's first Paediatric surgeon (Dr Mclee Mathew) and subsequent appointment of Dr Alphonse Rongap … currently the latest appointee to the Paediatric Surgical training program.

In Lae, 18 patients were treated of whom 11 had surgery and underwent 23 procedures. Surgery was for an anorectal anomaly in three patients, two had Hirschsprung related intervention, three a repair of a penile anomaly, one for a perineal tear, and a boy had obstruction of both his kidneys managed surgically.

Rabaul, Nonga Hospital

In ***Rabaul***, there is a new operating table sent by Kind Cuts for Kids, in an operating complex that has poor lighting, limited access to appropriate consumables and surgical instruments that require the visiting team to have a small kit to supplement the needs. As for the Lae team, the cooperation of all staff, in all areas, of the hospital is excellent, noting that the ward accommodation in Rabaul is more basic than in Lae. The images are of the donated operating table; the volunteer staff during one of the many ward rounds; importance of data-entry; and the access to Kind Cuts for Kids donations for Dr Rongap.

During the week, 25 pateints were reveiewed, 36 operations were performed on 17 patients, most of which was performed by Dr Alphonse Rongap, but with the support of both Dr Matthew and Dr Dewan. Seven patients had an anorectal anomaly, including a boy with congenital megarectum, one patient had Hirschsprung disease, one was a neonate with an incarcerated hernia, and one with duodenal atresia. Two patients had surgery for penile anomalies. All patients had uncomplicated outcome.

Over the ***twenty-six years of association with PNG by Kind Cuts for Kids***, numerous surgeons, anaesthetists and nurses had had skill enhancement and ***1077 patients*** have been treated. A figure known because of the rigorous attention to the recording of data.

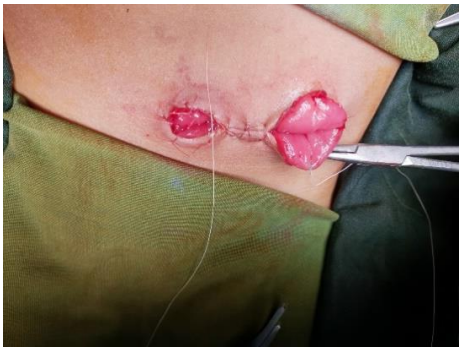
Issues of Concerns

Quality assurance is the main over-arching concern for the provision of Paediatric Surgical services, which is highlighted by the following specific aspects of care:

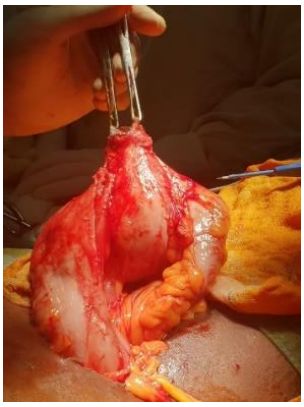
1. *Colostomy formation*

In Paediatric surgery there are two main conditions that lead to the need for the formation of a colostomy. One is anorectal anomalies, the other is aganglionosis of the distal colon – Hirschsprung disease. The ideal stoma differs in each condition and is approached differently in PNG, because of lack of radiology back-up and histology (I would argue that PNG patients are better off with reliance on improved surgical skill rather than the addition of more technology). Each patient is different, but the principles are easy, if you know them!

The first image shows an ideal stoma, which is a divided colostomy in the left iliac fossa. How it might be formed will depend on the diagnosis and the degree of dilation of the bowel. The second example is a superb stoma formed by a surgeon with adequate training.

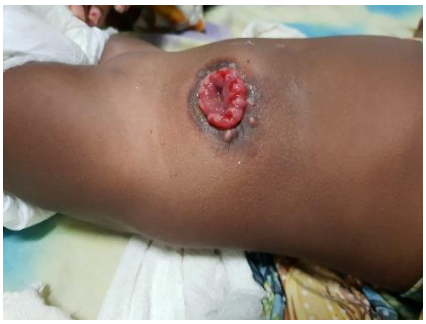


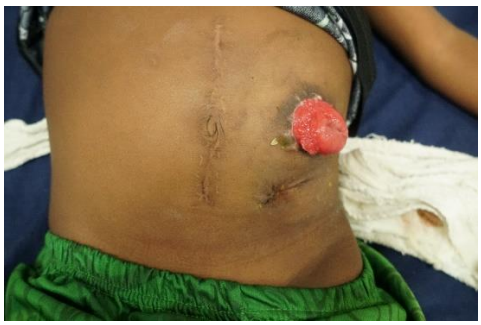
The colostomy below is one of the many examples of surgeons without training in Paediatric surgery failing to seek the advice of trained surgeons: the surgery can be done by any well-trained general surgeon, but contact with one of the subspecialty surgeons before the operation should be not only expected, but mandated. In this girl's case, the incision has been correctly placed in the left lower abdomen, but the **direction of the bowel has been erroneously reversed,** and ***only front wall of the bowel has been used to form the stoma***, resulting in faecal retention.



Colostomy formation cont'd

The difficulty for surgeons managing anorectal anomalies and Hirschsprung disease is the lack of experience and training in how to deal with the very dilated colon, the lack of insight into the appropriateness and conduct of revision colostomy surgery (as illustration by the below-left picture), and the lack of knowledge that a laparotomy in a baby, with likely Hirschsprung disease, should be via an incision through which the stoma is then exited, rather than the midline laparotomy seen below-right.





2. *Data recording and record keeping*

Since the first visit of Kind Cuts for Kids, data has been retained about the patients treated and the outcomes whenever the patient has been reviewed, which has made images and detail of the treatment available for patient review for both in-country and visiting surgeons. The importance of that information is highlighted by an image of the records department in Lae.

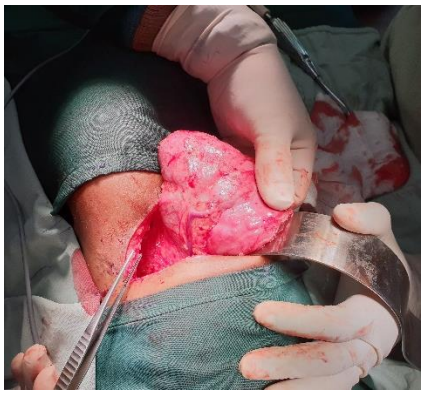
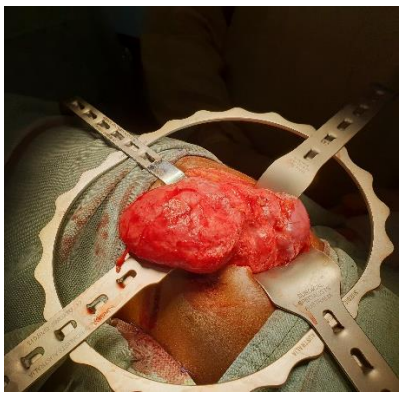
The intention of the establishment of a NO-COST DATABSE was to make available the information for the ongoing treatment of the patients, to enable outcome audits, rather than just through-put audit and to enable surgeons to track their own experience for accreditation. Unfortunately, despite this information having shared on many occasions there has been a lack of take-up, although the habit of photographic recording has become common-place.

One particular issue has been the failure of other visiting teams to adequately record their data, and a refusal to share information so that a team approach is facilitated.

3. *Urological Disease in Children*

Over more than a quarter of a century, it has become clear that urological disease in children is usually diagnosed late, which probably results in a urosepsis and premature death burden to the community that could be minimised. A case example seen during the recent visit was a boy who had undergone bilateral OPEN nephrostomy tube insertion on TWO occasions, with all 4 tubes having been dislodged. His scenario highlights the other aspect of the urological disease burden, which is the lack of training related to detection and management.

The patient, a 2.5 yo boy, was diagnoses at 2 months of age, but only underwent the surgery he required during the recent visit. He was discharged back to Alotau, from Lae, after successful bilateral pyelplasties.


The above pictures show the left and right kidney at the time of the surgery, during which the principles and practice of a currently unexpectedly rare procedure was performed. The third image (above) indicates the appropriate positioning of the urine drainage bag to enable the nephrostomy tubes to be removed early, but safely. The use of the "early-removal" technique is to be the subject of a submission to a scientific journal.

And, working with the Rotary Club of Lae, Huon Gulf, a program of screening of a large number of school children in Morobe is being planned; a project that will obviously need to involve both the Health Department and the Education Department, to whom the project will be submitted in the near future.

Conclusion

Paediatric Surgery has a bright future in PNG, if bullying is disempowered and patients' quality of care becomes the primary focus; those unwilling to collaborate with others should be invited not to participate!