COLLOBORATION TO INCREASE QUALITY AND QUANTITY OF ORTHOPAEDIC RESEARCH IN AFRICA

In the developing world, especially Africa, there is paucity of high quality clinical orthopaedic research. This situation is blamed on lack of research funding and inadequate research materials (1-3). Some of the papers published in this issue demonstrate that this state of affairs can be corrected and clinical research in orthopaedics advanced to a higher level.

Blaming poor funding and lack of quality material for low research output in the developing world is fallacious. Reasonable level of research can be carried out with little sponsorship, even self-sponsorship. There is also plenty of material accumulated over time as busy surgeons encounter large volumes of human, radiological, and laboratory material on daily bases. The problem is in the ability to design quality studies and collaboration for data acquisition. Evidence from high quality research conducted in this setting demonstrates this point. The study by Misiani *et al* (4), uses computer tomography scans on dry bone specimens to analyse morphometric differences of lumbar pedicles among adult Kenyans. This kind of study requires little funding, and uses basic equipment that already exists, computers, computer worksheet for recording raw data, weighing machine, standometer for height measurements, pencil, ruler, protractor and so on. Murerwa *et al* (5) exemplifies this point by measuring the Valgus Correction Angle (VCA) in primary TKR; they simply drew lines representing normal and aberrant axis on full limb X-rays. The excellent results could easily change the way we do femoral distal cuts that are measured and not assumed. The effect may be longevity of TKR due to proper coronal alignment. Mason *et al* (6) found 9% tibiofemoral, 4.9% femoral, and 4% tibial components mechanical outliers despite computer-assisted surgical alignment. Jeffrey *et al* (7) after their study concluded that malalignment causes abnormal forces which may lead to loosening after knee replacement. A prospective multicentre study should be designed and executed to test the validity of these findings. A multicentre study will quickly accumulate cases and allow easy follow-up.

Lack of materials for research is attributed to lack of proper records and registers which results in inadequate sample populations; a major deterrent in conducting sound research. Large volumes of cases in a short period become a mirage, yet it's of utmost importance to get an adequate sample. A large sample in a study will give a genuinely true, and robust statistical findings (the mythical $P<0.05$), devoid of type I and type II errors common while testing the null hypothesis (8). This problem can be solved by collaboration between surgeons within an institution or a department (centre) and between centres. Collaboration is hampered by attitudes and suspicion. Effective collaboration will only happen when we treat each other as colleagues and not competitors, as research scientists and not contenders for some abstract intellectual gold medal. We need to adopt objective approaches, devoid of personal biases and grandiose attitudes of where we work, and our aspired or acquired titles. Pooling up cases and working together is the way to go because we learn and enhance each other. This will not only guarantee our journal respect among peers but also guarantee international recognition and high impact factor. Of course, individuals can painstakingly keep a register and accumulate cases over time. Obiegbu (9) could only accumulate 24 cases of Blount's disease in five years. This study demonstrated effectiveness of a simple opening-closing wedge osteotomy for correcting the varus deformity. Obviously, there were similar numbers or even more cases within that time in neighbouring centres and in individual hands. Collaboration could, easily have a sample more in excess of 300, a figure that is reasonable for statistical analysis.

Putting up a Kenya orthopaedic Association (KOA) WhatsApp group was a fast step in gathering up the local orthopaedists together. We are required to go a step further and form research groups, pool our different strengths, design studies, share data, and publish. As individual surgeons, we are encouraged to keep proper records of whatever we do; recording successes and failures, complications, revisions, repeats and so on. That should eventually lead to localised registers that can be coalesced into national and regional registers. These registers may not be as great as the Swedish Orthopaedic and Spine Registers, but a long journey begins with a single step.

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