



ISN sub-Committee on Neuropathology Training & Development

Report on the International Society of Neuropathology Outreach Teaching Workshop Lima, Perú, 22-25 August 2016

Organised by the International Society of Neuropathology (ISN), Sub-Committee (SC) on Neuropathology Training & Development in co-operation with the Instituto Nacional de Ciencias Neurológicas, Lima, Perú, and Centro de Salud Global, Universidad Peruana Cayetano Heredia, Lima, Perú

2016 was a special year for the SC of the ISN! Since the previous event in December 2015, the SC managed another successful outreach activity for the first time in South America. While the pathology and the clinical neurosciences are widely recognised and taught in Peru, neuropathology is little practiced as a separate discipline. As in many other countries general pathologists usually handle cases with CNS involvement. However, as elsewhere in low and middle-income countries (LMICs) pathology trainees and neuroscience researchers are keen to learn neuropathology. Taking advantage of the XXII Annual Neuroscience Conference of Peru, the SC organised an intensive two-day teaching workshop on 22-24 August 2016 in collaboration with the Instituto Nacional de Ciencias Neurológicas (INCN; <http://www.incn.gob.pe/>), Lima, Perú, and Centro de Salud Global, Universidad Peruana Cayetano Heredia, Lima, Perú. The workshop was hosted by Drs. Hector H. Garcia and Diana Rivas Center for Global Health - Tumbes and Departments of Microbiology and Pathology, Universidad Peruana Cayetano Heredia. It was held at the Medical Faculty of the UPOCH Campus Miraflores (Campus Sur), Av. Armendáriz 445- 495, Distrito de Miraflores, with over 60 trainees, residents and researchers from the local Universities and hospitals attending the sessions. Like other ISN workshops the programme incorporated didactic teaching of neuropathology as related to the neurological sciences and relevant case discussions in English and Spanish. On one of the days the Q& A session also involved interactive discussions of ongoing projects.

The workshop was organised to a very high standard, and clearly met the need to build capacity in Neuropathology training for general pathology trainees and brain researchers, where the burden of disease related to both communicable and non-communicable diseases of the nervous system is relatively high. Peru is uniquely suited for investigations into cysticercosis, cyclosporiasis and hydatidosis because of the high prevalence of these diseases. To address these endemic disorders and other infectious diseases, a sophisticated research infrastructure has been created with the collaboration of several Peruvian Institutions (San Marcos University; Cayetano Heredia University; Instituto de Ciencias Neurológicas) and other organisations such as the Johns Hopkins University and the Centers for Disease Control and Prevention, National Institutes of Health, Oregon State University, Imperial College in London, the ITG (Institute of Tropical Medicine) in Antwerp and the University of Melbourne, Australia.

The workshop programme in the main featured tumours, neurodegeneration, Prion disease, epilepsy and viral and parasitic infections. After the welcome messages delivered by Drs Rivas, Garcia and Kalaria, the workshop began in earnest with the comprehensive coverage of the WHO 2016 Update on Pathology and Genetics of Gliomas by Arie Perry (San Francisco, USA). Dr Sandro Casavilca (Lima) delivered an excellent review of the range of tumours in Latin America. Two topics were covered on infections: Prof J. Eymard Pittella (Sao Paulo, Brasil) reviewed the neuropathology of

Parasitic Infections while Dr Garcia (Lima) gave a thorough account of neurocysticercosis. One of the highlights of the first session was the delightful rendering of the oligodendroglioma aria by Professor Perry (set to Ave Maria by F. Schubert). Sebastian Brandner (London, UK) covered neurodegeneration and the common dementias. The second day's theme was "Prion Diseases and Epilepsy." At the start of the day Prof Herbert Budka (Zurich, Switzerland) discussed sporadic and inherited Prion diseases. This was followed by an account of the transmissible Prion diseases including nvCJD and iatrogenic CJD (S Brandner, UK). Dr Rivas (Lima) reviewed the incidence of Prion diseases reported at the INCN, Peru. Prof Raj Kalaria (Newcastle, UK) then gave a comprehensive update on the neuropathology of epilepsy. In the second part on tumours, Arie Perry (UA) gave an update on the WHO 2016 report on the pathology and genetics of Embryonal Neoplasms. On both days, the instructors discussed several relevant and interesting cases. Herbert Budka (Switzerland) concluded the workshop with his traditional talk on neuropathology in the 21st century and the role of the ISN. As past president of the ISN, he encouraged the workshop participants and trainees to join the ISN and support her conferences. During the final Q&A session the faculty offered much advice on research projects conducted by the local staff at the Center for Global Health on their various projects on the pathogenesis of neurocysticercosis. The workshop will be not only be remembered for Professor Perry's glioma ballads but it was an unique opportunity for the ISN to be in the Latin continent. The instructors will also not forget the constant supply of the Inca Colas and the Pisco sours! All the presentations and slides were made available to the pathology residents who could not attend some of the sessions because of their clinical duties.

On 25th August, the ISN faculty also contributed to the XXII Annual Neurosciences Conference of Peru, held at the Swissotel hotel, Lima. They gave talks on common glial tumours, cerebrovascular disorders and neurodegeneration. In addition, to the highly interesting sight-seeing tour of the bustling new and old Lima efficiently organised by the local host team, faculty members also visited the INCN; a busy National Neurology Hospital, which also houses the Cysticercosis Unit (www.peruresearch.org), in Lima, Peru.

Thanks to the support of the ISN and the local organisation, several young doctors and trainees within Peru were trained. The core organisation of the workshop was led by the ISN sub-committee and chaired by Prof. Raj Kalaria (UK) together with the excellent assistance of Dr Hector Garcia, responsible for the overall organisation of the workshop and local arrangements in Lima. A warm message of *muchas gracias* was conveyed to all those who made the workshop possible and in particular to the local organisers who generously gave their time. The ISN is especially grateful to Ms Hyedi Toro, Dr Kahtia Linares and, Dr Diana Rivas (Lima), Dr Sandro Casavilca Zambrano (Lima) and Dr Jorge Gonzalez Mendoza (Lima). Dr Mendoza was a lifesaver as he almost single-handedly translated all the talks and comments from English to Spanish and vice versa. The full programme and all the lectures can be downloaded from www.peruresearch.org under the link Neuropathology Workshop 2016.

The SC chair has also begun to search for potential hosts for outreach activity to be held in future years. To meet this continuing need, ISN members have been asked of potential sites in Eastern Europe, Asia and Africa. Proposals for the next ISN Workshop are also welcome from the membership.

Report submitted by Raj Kalaria *on behalf of the T&D sub-Committee*

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Pictures: 1) Participants of the ISN Workshop 2016 at UPCH in Miraflores, Lima, 2) ISN Workshop 2016_Lima Peru_H Budka and H Garcia Discussion; 3) ISN Workshop2016_ Lima Peru_A Perry's rendering the Oligodendrogloma Aria; 4) ISN Workshop_Lima Peru_2016_Host Dr Hugo Garcia with trainees and students, 5) ISN Workshop 2016_Faculty at Dinner with INCN President_Lima Peru, 6) Flyer of the ISN Workshop advertised in the programme of the XXII Annual Neurosciences Conference of Peru.



1) Participants of the ISN Workshop at UPCH in Miraflores, Lima



2) ISN Workshop 2016_Lima Peru_H Budka and H Garcia Discussion

Oligodendroglioma
Music to Ave Maria by F. Schubert, Lyrics by Arie Perry, MD

O—ligodendroglio-oh-oh-ma, diffuse cerebral tumor of adults
Invading cortex, causing epilepsy; on imaging, often you are calcified
And although, you tend to progress over time, for long periods your fine
You're famous for your rounded nuclei,
Clear haloes look like honeycombs or fried eggs
With branching chicken wire capillaries, and perineuronal satellitosis

O—ligodendroglio-oh-oh-ma, genetically, you are quite unique
With 1p and 19q deletions, from translocation with loss of one derivative
Represents a genetically favorable set, when FISH criteria are met

Anaplastic cases grow more rapidly, assigned a W.H.O. grade III
With microvascular proliferation, or increased mitotic activity

O—ligodendroglio-oh-oh-ma



3) ISN Workshop2016_ Lima Peru_A Perry's rendering the Oligodendroglioma Aria



4) ISN Workshop_Lima Peru_2016_Host Dr Hugo Garcia with trainees and students



5) ISN Workshop 2016_Faculty at Dinner with INCN Director Dr Mazzetti Soler, Lima Peru

Organizado por:
El Subcomité de Entrenamiento y Desarrollo de Neuropatología de la Sociedad Internacional de Neuropatología (ISN), en cooperación con el Instituto Nacional de Ciencias Neurológicas y el Centro de Salud Global de la Universidad Peruana Cayetano Heredia.

Lugar:
UPCH Campus Miraflores (Campus Sur)
Av. Armendáriz 445- 495, Distrito de Miraflores

Costo:
S/ 220.00 soles. Depositar en la cuenta por el concepto de PAGOS VARIOS de la UPCH e indicar el código 880022 + DNI del participante; en los bancos de Credito, Continental y Scotiabank.

Informes e inscripciones:*
Oficina de Investigación y Docencia Especializada del INCN
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 **PERU** Ministerio de Salud
  **igss** Instituto de Seguro Social de Salud
  INSTITUTO NACIONAL DE CIENCIAS NEUROLÓGICAS

XXII CURSO INTERNACIONAL DE NEUROCIENCIAS

25, 26 y 27 de agosto del 2016
Swissôtel Lima
LIMA - PERÚ

I CURSO INTERNACIONAL DE NEUROLOGÍA

23 y 24 de Agosto del 2016

PROGRAMA

6) The ISN Workshop advertised in the programme flyer of the XXII Annual Neurosciences Conference of Peru