ISCHEMIC STROKE

Nitin Sampat
WOCKHARDT HOSPITAL, India

Abstract:
A stroke is a relatively sudden occurrence of a focal neurologic deficit due to occlusion (ischemic stroke) or rupture of cerebral blood vessels.

It is the fourth largest cause of death but more importantly, the commonest cause of residual deficit & disability which can last life long. It occurs all over the world with a high prevalence—in fact 600000 cases of ischemic stroke occur in USA annually. The yearly stroke rate in population > 70 years is 0.5% / year.

In the near past it was a catastrophic event, there being no definite treatment for complete stroke recovery, but giant steps have been taken in neuroimaging & treatment to give patients a reasonable chance of complete recovery.

In view of high mortality & long lasting morbidity, we should make every effort to prevent a stroke before an attack occurs (primary). Some risk factors are modifiable & some are not, or try to prevent recurrence of stroke after a stroke or TIA has occurred. (secondary prevention)

If, unfortunately, a stroke occurs, confirmed clinically, (TIME IS BRAIN) prompt admission in a stroke unit (now mobilestroke units are also available), immediate MRI/MRA or Ct scan/CTA should be done, & if not contraindicated, urgent thrombolysis should be done to salvage the ischemic penumbra. This results in reversal of deficit in a fair no. of individuals immediately & at 3 months. If more time has elapsed >4.5 hours or if major occlusion is seen endovascular thrombectomy, with a retrievable stent achieves the purpose of reperfusion, especially if there is evidence of salvageable tissue on perfusion imaging. Proper handling of associated hypertension, diabetes, fever etc. is very important.

Now neuroimaging including diffusion perfusion scans along with CT angiography guides the clinician as to which case will benefit & which will not, & prognosticate the outcome & if endovascular thrombectomy would benefit the patient in a big way.

Biography:
Dr. Nitin Sampat is an Honorable Neurologist working at wockhardt hospital he is trained in sleep studies in miami usa/london. Trans cranial doppler /intraoperative electrophysiology in boston usa/london epilepsy surgery programme -pre & postsurgery at great ormond street london training in botox in movement disorders in the national hospital london doing electrophysiology since 38+ years special interest in headache, stroke did several drug trials for pharma cos.

Recent Publications:
1. Attentive Dist: Protein Inter-Residue Distance Prediction Using Deep Learning with Attention on Quadruple Multiple Sequence Alignments.
2. Influence of high-risk factors on early neurodevelopmental outcome of high-risk newborns and role of follow up compliance.
3. The CAFA challenge reports improved protein function prediction and new functional annotations for hundreds of genes through experimental screens.