

intensity occupying more than $2/3^{\text{rd}}$ of the cross sectional area of the cord. It is not a specific sign for transverse myelitis and has been reported in the cases of intramedullary tumors. When contrast was given in the patient there was a peripheral enhancement with maintenance of the cord contour, this contrast enhancement may be confused with intramedullary tumors but in those cases contrast enhancement is profound and occupies the entire cross sectional area of the cord on at least one T1 weighted axial image and it is heterogeneous associated with central or marginal cavity. Similar observations were made by Choi et.al.¹⁴, Barkos et.al.¹⁵ & Aichner et.al.¹⁶ Commonly 3-4 spinal segments are involved Barkos et al¹⁵ & Bruna J¹⁹ reported signal abnormality extending over at least six spinal segments. Misra and colleagues¹³ have reported unusual cases of acute transverse myelitis with long segment involvement (cervical to conus). In our series the lesions extended for average 6 spinal segment. The length of spinal segments was directly related to the severity of neurological deficit and predicted prognosis as also reported earlier in the series earlier.

3 patients who showed hypointensity on T1 weighted images showed slow recovery suggesting that the hypointensity represent parenchymal or myelomalacic changes. Spinal multiple sclerosis is also associated with similar M R imaging findings but here the hypereintensity extends for not more than 2 segments, enhancement on contrast is central and the plaques are large, multiple, sharply demarcated and sometimes confluent (*kissing plaques*).

Our study showed a good response with high dose methylprednisolone; similar observation was made by Deference et al¹⁷ and sabire et al¹⁸ Chan K H, Tsang KL et al²⁰ but the results were unsatisfactory in few shades. However a multicentric study having a large sample size is needed to have final conclusion.

CONCLUSION

The characteristic findings of transverse myelitis on M R imaging include normal size or segmental enlargement of the cord most commonly thoracic, central hyperintensity

occupying more than $2/3^{\text{rd}}$ of cross sectional area of the cord. It usually affects more than 3 spinal segments central; dot in the core of hyperintensity. There is peripheral contrast enhancement of lesion. Apart from this we can also appreciate necrosis of cord in form of hypointensity on T1 weighted images. These findings can differentiate transverse myelitis from multiple sclerosis, cord tumors or other intramedullary lesions. Prognosis is poor in the patients having long hyperintense signals and necrosis. This study has shown a beneficial effect of methylprednisolone. Our study is one of the few studies that has simultaneously analysed the clinicoradiological correlation of transverse myelitis and response to high dose corticosteroids.

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Renal Transplant Outcome in High Cardio Vascular Risk Recipients

Jelka TK, et. al. *Clin Transplant* 2007;21: 609-614

Cardiovascular (CV) disease is the foremost cause of morbidity in renal transplant recipients. The disease burden is likely to increase as older patients are accepted for transplantation. The outcome of these high-CV risk patients after renal transplantation, especially with known pre-transplant coronary artery diseases (CAD). All renal transplants performed between 1998 and 2002 at our centre, followed up to 2005, were divided into high- and low-risk groups, based on the presences of one or more of the following: pre-transplant angina, myocardial infarction, and positive coronary angiogram. The two groups were compared for post-transplant cardiac events and patient and graft survival. The factors predictive of post-transplant cardiac event were also determined by Cox-regression multivariate analysis.

Forty-five patients (10.5%), out of 429, had post transplant cardiac events; 31.3% in high risk, and 6.5% in the low-risk group ($p=0.001$). Five yr patient survival was lower in the high risk group (82.8% vs. 93.1%, $p=0.004$), while five-yr overall graft survival and death censored graft survival were statistically not different (74.8% vs. 84.1%, $p=0.008$ and 87.3% vs. 90%, $p=0.25$), 41% patients who were treated with angioplasty plus stenting or bypass graft prior to transplantation had post-transplant cardiac events, as compared with 28% of those without intervention in the high risk group and 6.5% of patients in the low risk group ($p=0.001$). Age, pre-transplant cardiac disease, arrhythmias, and low ejection fraction ($\leq 40\%$) were significant independent predictors of post-transplant cardiac event. Post-transplant survival of high-CV risk patients (with Known CAD) is lower than that of low-risk recipients but remain acceptable. Cardiac interventions may reduce perioperative risk but do not reduce the probability of post transplant cardiac events of that of low-risk group.

offers the advantage of direct visualization of the occlusive process and is probably more accurate than TCD for detecting vertebral basilar occlusive disease. In some situations ultrasound may compliment MRA. The central point is, however, that if MR becomes the anatomic imaging modality of choice in patients with early brain ischemia, the additional 8-10 minutes required for MRA will become a standard part of the MR evaluation of patients with acute stroke. Assuming, therefore, that anatomic imaging of patients with acute focal neurological deficits remains necessary to exclude brain hemorrhage, the central question to be decided is whether we should continue with our traditional CT approach or shift to MR as the imaging modality of choice in patients with acute stroke. If MR imaging is advantageous over CT, then whether to do MRA becomes a moot point since it adds less than 10 minutes to the data acquisition time.

A final question might be whether vascular imaging is necessary at all in patients with very early brain ischemia. Most, I think would agree that ideally the state of the offending vessel should be known before initiating a specific therapy such as thrombolysis. The concern has been, however, that angiography in the acute stroke patient is not only hazardous but time consuming and may delay treatment for up to two hours. While the BW-tPA acute stroke study did not find angiography in the acute stroke hazardous, it did delay initiation of treatment for 1.5 hours. On the other hand, 25% of patients in that study were excluded from thrombolytic therapy on the basis of angiographic criteria (i.e., eligible by clinical and CT criteria). These results suggest that it will be difficult to select the best candidates for very early intravenous thrombolytic therapy on the basis of the clinical examination

only. The great appeal of MRA, therefore, is the ability to acquire not only anatomic data but also vascular imaging in a very brief period of time so that a specific treatment plan can be initiated. When combined with MRD, treatment might be selected on a more physiologic rather than clinical (time from onset, severity of deficit) or anatomic (presence or absence of occlusion) basis.

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RENAL TRANSPLANTATION OUTCOMES:

A COMPARATIVE ANALYSIS BETWEEN ELDERLY AND YOUNGER RECIPIENTS

Mendonça H.M. et al. Clin. Transp. 2007, 2:59-64

Renal transplantation is presently the best treatment for end-stage renal disease, although considered contraindicated for elderly patients. However, more investigation is needed due to higher life expectancy rates of the general population and the increasing number of over 60-yr-old patients with chronic renal failure dependant upon dialysis. This study aims to determine graft and patient survival rates of renal transplant patients 60 yr and older compared to a younger group (50–59 yr old). Relevant pre- and post-transplant clinical data related to graft and patient survival in both groups were also investigated. Three-hundred and twenty consecutive renal transplant patients were enrolled in this study and grouped based on age at the time of the transplantation: one-hundred and ten patients at or over 60 yr old (elderly group) and 210 patients ranging from 50 to 59 yr old (younger group). There were no statistical differences in either group regarding clinical characteristics and immunological risk factors. The incidence of acute rejection was higher in the younger group (37.6%) than in the elderly (22.7%) ($p = 0.01$). Censored to death graft survivals at five yr were respectively 86.7% for patients ≥ 60 yr and 82.1% for patients 50–59 yr old ($p = 0.49$). Patient survival rates at five yr were respectively 76.2% for patients ≥ 60 yr and 81.6% for patients 50–59 yr old ($p = 0.33$). Our data show that renal transplantation for elderly patients has similar results to those found in younger individuals, this age, itself should not be a contraindication for transplantation.

They are not unique for HSE (occurring also with infarcts, abscesses or tumors) but are highly suggestive in the appropriate clinical setting. The EEG in subacute sclerosing panencephalitis (SSPE) is highly specific and shows high amplitude, bilateral synchronous, symmetrical period complexes. They repeat every 4 to 10 seconds and each complex is associated with a clinical myoclonic jerk. In the early stages of the disease, they may occur after long intervals and sleep may activate them. A sleep recording is therefore recommended when the awake tracing is normal in a suspected case of SSPE. The characteristic EEG pattern in CJD consists of periodic, bilaterally synchronous bi- or triphasic sharp waves which repeat at a frequency of around one per second. In the early stages, focal periodic sharp waves (PLEDs) may be seen. As in SSPE, each periodic complex is associated with a clinical myoclonic jerk and this EEG pattern in the right clinical setting strongly supports the diagnosis.

EEG IN NEONATES

In recent years, EEG has been used to evaluate full term or premature neonates due to limitations in performing an adequate neurological examination in newborns²¹. It is an important tool to assess an encephalopathic process or the occurrence of epileptic seizures and to predict neurological outcome. The EEG of a neonate shows distinctive patterns related to the conceptional age and the behavioral state (awake, active sleep and quiet sleep). Some of these neonatal EEG patterns resemble the burst suppression pattern that carries a poor prognosis. However the burst suppression pattern is invariant and not reactive to stimulation unlike the neonatal EEG. Severely abnormal neonatal EEG patterns consist of persistent low voltage tracing, invariant nonreactive burst suppression pattern and the presence of gross asymmetry over the two sides of the head. In neonates, seizures are often characterized clinically by subtle motor behavior and the EEG is indispensable in establishing epileptic activity by demonstrating an associated ictal pattern. This pattern often differs from that in older children and adults and is usually unifocal or multifocal. Interictal epileptiform abnormalities are rarely present to aid in the diagnosis.

Some technical points are important to optimize neonatal EEG recordings. The study should be long enough to include both

active and quiet sleep. It may be necessary to record the EEG for 45-60 minutes instead of the usual 30 minutes. Non-EEG variables like respiration, extraocular movements, ECG and chin activity should be routinely recorded as they are critical in identifying different states (awake, active or quiet sleep) and in recognizing various artifacts.

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LONG-TERM FOLLOW-UP ABO-INCOMPATIBLE ADULT LIVING DONOR LIVER TRANSPLANTATION IN CIRRHOTIC PATIENTS Matsuno N. et.al. *Clin. Transp.* 2007,1:229-233

ABO-incompatible liver transplantation is usually contraindicated. The presence in the recipient of preformed anti-A/B antibodies located on endothelial cells raises the risk of antibody-mediated humoral rejection of the graft. We describe four successful cases of steroid withdrawal in adult patients who had living-donor liver transplantation from ABO-incompatible donors. Antirejection therapy included multiple perioperative plasmapheresis, splenectomy, and a triple immunosuppressive regimen with tacrolimus, methylprednisolone (MPSL), and cyclophosphamide or mycophenolate mofetil (MMF). The maintenance dose of immunosuppression did not differ from that of ABO-identical cases. After transplantation, intrahepatic arterial infusion therapy with prostaglandin E1 (PGE1) was used. As a result, all four patients were able to achieve long-term graft survival without steroid use. They all have good liver function and are leading normal lifestyles. Our experience with these four patients suggests the feasibility of controlling humoral rejection and other complications in adult ABO-incompatible living donor liver transplantations with intrahepatic arterial infusion of PGE1, splenectomy, and plasmapheresis with a regular base of immunosuppression protocol to prevent antibody-mediated humoral rejection.