



# News Letter

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## INDIAN SOCIETY OF NEUROANAESTHESIOLOGY AND CRITICAL CARE

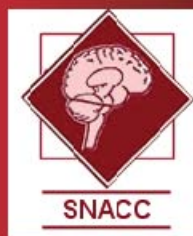


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Dept. of Neuroanaesthesiology & Chief, Neurosciences Centre

All India Institute of Medical Sciences, New Delhi-110 029

**2nd Conference of  
Asian Society for Neuroanesthesia and Critical Care  
&  
12th Annual Conference of  
Indian Society of Neuroanaesthesiology and Critical Care**



**Date:**

February, 25-27, 2011

**Venue:**

India Habitat Centre, Lodhi Road, New Delhi (India)

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## *From the Editor's desk*

*At the outset, I wish all our readers a very happy, prosperous and healthy New Year. Though it is a belated one still wishing something good is always immensely satisfying. So many years have gone by, but, the membership drive for our society and giving face lift to our News Letter still remains a distant dream. I don't know why the membership drive goes on a snail's space? This is highly intriguing! We have membership drive only during the Annual Conference. Why can't we have membership drive throughout the year? Why our senior members are not taking active interest in this regard? I would appreciate if all our members apply their mind for few minutes and prescribe some suggestions so that it would be wonderful for our society. Let us hope for the best.*

*Other concern is the submission of scientific articles for publication in our News Letter. Despite waiting for more than six months, I could able to review an interesting case report that too from my department for publication in our News Letter. I sincerely hope, the case report will be of help to our readers. Once again may I appeal to one and all to submit their scientific research work for publication in our esteemed News Letter so that we can have a full-fledged ISNACC Journal in future to boast. My dear senior members, please encourage your junior colleagues to submit their research work for publication in our News Letter.*

*Here I am very happy to inform all our readers that our News Letter slowly gaining ground amongst the junior as well as senior Anaesthesiologist of India. In this issue I am publishing a letter written by one of our reader in response to the previous case report. My fervent request to our readers is to submit their opinion or criticism pertaining to the published articles which can be published as letter to Editor.*

*I am very sorry for bringing out the "News Letter" little late. I owe our members an unconditional apology. The delay in publishing this issue is due to busy schedule from Nov. 2009 to Feb. 2010 in my home front. I assure my readers that this will not be repeated in foreseeable future.*

*My heartiest congratulations to Madam Amna Goswami and her team for the excellent 11th Annual Conference of ISNACC at Kolkata. The Conference was a great success not only from Bengali hospitality but also, from scientific deliberations.*

*I wish the 2011 ISNACC Conference along with the 2nd Asian Congress of Neuroanaesthesiology and Critical Care will be a great success. I invite all our members to be part of this 1st International extravaganza, of ISNACC in India.*

**H.H. DASH**

**Editor-in-Chief**

## Discussion

Neonates and infants with craniofacial anomalies, especially when associated with hydrocephalus have high incidence of difficult laryngoscopy and intubation in conventional position despite all helps. Difficult paediatric airway is, any anaesthesiologist's nightmare due to limited respiratory reserve in this age group and also, the paucity of advanced intubation devices for small children.

Use of LMA classic for blind 1 and fiberoptic assisted intubation 2 have been described for management of difficult airway. Conventionally, children with occipital encephalocele and hydrocephalus are intubated either in lateral position or by supporting the shoulder and the body over rolls with the child's head at the edge of table<sup>3</sup>. The problem with the use of LMA for tracheal intubation is possibility of dislodgement of endotracheal tube while removing LMA over the tube. Different techniques have been advocated to prevent this. Two tubes may be joined 2 with a connector if the proximal end of endotracheal tube doesn't come out of the proximal end of the LMA. A disposable stylet may be inserted inside the tube right up to the distal end to make the tube stiff and easier to hold in place with the elongated proximal end<sup>4</sup>. In the present case, we used a size 1 LMA and could easily pass a 2.5 mm ID uncuffed endotracheal tube through it. The proximal end of the tube was still outside the LMA tube. We had no difficulty in removing the LMA over the tube with tube held in place with a disposable stylet used as a stabilizing rod like in an intubating LMA.

In conclusion, we feel, in difficult endotracheal intubation scenario, one may try endotracheal intubation in infants through classic LMA.

## References

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## 2nd Conference of Asian Society for Neuroanesthesia and Critical Care

&

## 12th Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care

India Habitat Centre, Lodhi Road, New Delhi (India)

February 25 – 27, 2011

Registration Charges	Till Sept. 30, 2010	Dec., 31, 2010	Jan. 1, 2011 onward
Indian Delegates	Rs. 4000/-	Rs. 5000/-	Rs. 6000/-
PG Students*	Rs. 2500/-	Rs. 3000/-	Rs. 3500/-
Foreign	USD: 100	USD: 150	USD: 200

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## Letter to Editor

**Dear Sir,**

It was a very good topic that was put forth in the ISNAAC newsletter regarding post op visual loss especially in spine surgeries.

In, a teaching hospital abroad I had faced the same problem post surgery .

In countries abroad it can be very very dangerous medicolegally since in the consent form this particular problem is not highlighted (apparently due to the rarity of the event) and hence the pt can place a case in the court.

However our pt did recover after the same.

There was not satisfactory proof of pathology in the eye after consultation with the ophthalmologist.

However the following treatment was initiated of which I am not sure what exactly helped. However subsequently any pt with visual field loss were subjected to the above as it seemed to have taken the fancy of the attending involved. It was repeated in a total of two pts.

But this treatment due to its minimal side effects may help to improve the prognosis post visual loss, anyways we do not have much to lose ...so why not try.

1. 30 degree head high with no lowering even during sleep
2. Light massages of the eye every hr for five minutes
3. cold saline application or tolerable hypothermia to the eye
4. I.V acetazolamide
5. use of swimming goggles or eye pads with cold sponges inside the eye compartment.
6. Avoidance of tight dressings in the head and neck region

There are no robust evidence for the same ,but I am mentioning the same so that we could use the above mentioned low cost, may be efficient treatment for our pts.

Regards,

**Dr. Sanjith**

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Mumbai-400059.

## On-Pump versus Off-Pump Coronary-Artery Bypass Surgery

A. Laurie Shroyer, Ph.D., Frederick L. Grover, M.D., Brack Hattler, M.D., Joseph F. Collins, Sc.D., Gerald O. McDonald, M.D., Elizabeth Kozora, Ph.D., John C. Lucke, M.D., Janet H. Baltz, R.N., Dimitri Novitzky, M.D., Ph.D., for the Veterans Affairs Randomized On/Off Bypass (ROOBY) Study Group

*N Eng J Med 361;1827-1837:2009.*

### Background

Coronary-artery bypass grafting (CABG) has traditionally been performed with the use of cardiopulmonary bypass (on-pump CABG). CABG without cardiopulmonary bypass (off-pump CABG) might reduce the number of complications related to the heart-lung machine.

### Methods

We randomly assigned 2203 patients scheduled for urgent or elective CABG to either on-pump or off-pump procedures. The primary short-term end point was a composite of death or complications (reoperation, new mechanical support, cardiac arrest, coma, stroke, or renal failure) before discharge or within 30 days after surgery. The primary long-term end point was a composite of death from any cause, a repeat revascularization procedure, or a nonfatal myocardial infarction within 1 year after surgery. Secondary end points included the completeness of revascularization, graft patency at 1 year, neuropsychological outcomes, and the use of major resources.

### Results

There was no significant difference between off-pump and on-pump CABG in the rate of the 30-day composite outcome (7.0% and 5.6%, respectively;  $P=0.19$ ). The rate of the 1-year composite outcome was higher for off-pump than for on-pump CABG (9.9% vs. 7.4%,  $P=0.04$ ). The proportion of patients with fewer grafts completed than originally planned was higher with off-pump CABG than with on-pump CABG (17.8% vs. 11.1%,  $P<0.001$ ). Follow-up angiograms in 1371 patients who underwent 4093 grafts revealed that the overall rate of graft patency was lower in the off-pump group than in the on-pump group (82.6% vs. 87.8%,  $P<0.01$ ). There were no treatment-based differences in neuropsychological outcomes or short-term use of major resources.

### Conclusions

At 1 year of follow-up, patients in the off-pump group had worse composite outcomes and poorer graft patency than did patients in the on-pump group. No significant differences between the techniques were found in neuropsychological outcomes or use of major resources.



## Moderate Hypothermia to Treat Perinatal Asphyxial Encephalopathy

Denis V. Azzopardi, F.R.C.P.C.H., Brenda Strohm, R.G.N., A. David Edwards, F.Med.Sci., Leigh Dyet, M.B., B.S., Ph.D., Henry L. Halliday, F.R.C.P.H., Edmund Juszczak, M.Sc., Olga Kapellou, M.D., Malcolm Levene, F.Med.Sci., Neil Marlow, F.Med.Sci., Emma Porter, M.R.C.P.C.H., Marianne Thoresen, M.D., Ph.D., Andrew Whitelaw, F.R.C.P.C.H., Peter Brocklehurst, F.F.P.H., for the TOBY Study Group

*N Eng J Med 361;1349-1358:2009.*

### Background

Whether hypothermic therapy improves neurodevelopmental outcomes in newborn infants with asphyxial encephalopathy is uncertain.

### Methods

We performed a randomized trial of infants who were less than 6 hours of age and had a gestational age of at least 36 weeks and perinatal asphyxial encephalopathy. We compared intensive care plus cooling of the body to 33.5°C for 72



hours and intensive care alone. The primary outcome was death or severe disability at 18 months of age. Prespecified secondary outcomes included 12 neurologic outcomes and 14 other adverse outcomes.

## Results

Of 325 infants enrolled, 163 underwent intensive care with cooling, and 162 underwent intensive care alone. In the cooled group, 42 infants died and 32 survived but had severe neurodevelopmental disability, whereas in the noncooled group, 44 infants died and 42 had severe disability (relative risk for either outcome, 0.86; 95% confidence interval [CI], 0.68 to 1.07;  $P=0.17$ ). Infants in the cooled group had an increased rate of survival without neurologic abnormality (relative risk, 1.57; 95% CI, 1.16 to 2.12;  $P=0.003$ ). Among survivors, cooling resulted in reduced risks of cerebral palsy (relative risk, 0.67; 95% CI, 0.47 to 0.96;  $P=0.03$ ) and improved scores on the Mental Developmental Index and Psychomotor Developmental Index of the Bayley Scales of Infant Development II ( $P=0.03$  for each) and the Gross Motor Function Classification System ( $P=0.01$ ). Improvements in other neurologic outcomes in the cooled group were not significant. Adverse events were mostly minor and not associated with cooling.

## Conclusions

Induction of moderate hypothermia for 72 hours in infants who had perinatal asphyxia did not significantly reduce the combined rate of death or severe disability but resulted in improved neurologic outcomes in survivors.



## Comparison of routine and on-demand prescription of chest radiographs in mechanically ventilated adults: a multicentre, cluster-randomised, two-period crossover study

Hejblum G, Chalumeau-Lemoine L, Ioos V, Boëlle PY, Salomon L, Simon T, Vibert JF, Guidet B.

*Lancet.* 374; 1656-8:2009.

## Background

Present guidelines recommend routine daily chest radiographs for mechanically ventilated patients in intensive care units. However, some units use an on-demand strategy, in which chest radiographs are done only if warranted by the patient's clinical status. By comparison between routine and on-demand strategies, we aimed to establish which strategy was more efficient and effective for optimum patient care.

## Methods

In a cluster-randomised, open-label crossover study, we randomly assigned 21 intensive care units at 18 hospitals in France to use a routine or an on-demand strategy for prescription of chest radiographs during the first of two treatment periods. Units used the alternative strategy in the second period. Each treatment period lasted for the time taken for enrolment and study of 20 consecutive patients per intensive care unit; patients were monitored until discharge from the unit or for up to 30 days' mechanical ventilation, whichever was first. Units enrolled 967 patients, but 118 were excluded because they had been receiving mechanical ventilation for less than 2 days. The primary outcome measure was the mean number of chest radiographs per patient-day of mechanical ventilation. Analysis was by intention to treat. This study is registered with Clinical Trials.gov, number NCT00893672.

## Findings

11 intensive care units were randomly allocated to use a routine strategy to order chest radiographs in the first treatment period, and 10 units to use an on-demand strategy. Overall, 424 patients had 4607 routine chest radiographs (mean per patient-day of mechanical ventilation 1.09, 95% CI 1.05-1.14), and 425 had 3148 on-demand chest radiographs (mean 0.75, 0.67-0.83), which corresponded to a reduction of 32% (95% CI 25-38) with the on-demand strategy ( $p<0.0001$ ).

## Interpretation

Our results strongly support adoption of an on-demand strategy in preference to a routine strategy to decrease use of chest radiographs in mechanically ventilated patients without a reduction in patients' quality of care or safety.

## Blood glucose level in neurosurgery. Is it different between isoflurane and desflurane anesthesia?

Akavipat P, Polsayom N, Pannak S, Punkla W.

*Acta Med Indones 41; 121-5:2009.*

### Aim

A tight control of blood glucose is critical. We compare blood glucose level between isoflurane and desflurane in neurosurgical patients for further application.

### Methods

One hundred and eight patients scheduled for neurosurgery under general anesthesia were recruited and divided into two groups; fentanyl-isoflurane-nitrous oxide based and fentanyl-desflurane-nitrous oxide based randomly. Vital signs, end tidal gas concentration, amount of narcotics usage and blood glucose level were recorded at induction (T0) and intraoperative hourly thereafter (T1-T8). Independent t-test and ANOVA were used. The statistical significance was considered if p-value < 0.05.

### Results

There were 107 patients enrolled excluded one from isoflurane group because of the schedule changes. The amounts of fentanyl usage (0.89±0.41 mcg/kg/hr, 0.88±0.48 mcg/kg/hr), the end tidal inhaled tension (0.71%±0.32, 3.13%±1.63) were equivalent in isoflurane and desflurane group. The blood glucose levels at various period of time had no statistical difference but there was a significant (p<0.05) increasing from T1 to T8 comparing to T0 in both groups (3.88±0.93 mg%/hr and 5.55±1.14mg%/hr).

### Conclusion

Desflurane has demonstrated the indistinguishable blood glucose level and hemodynamic response from isoflurane anesthesia intraoperatively in neurosurgical patients, confirming a comparable pattern of blood glucose concentration intensifying over time spends.



## Milrinone for the treatment of cerebral vasospasm after aneurysmal subarachnoid hemorrhage

Fraticeilli AT, Cholley BP, Losser MR, Saint Maurice JP, Payen D.

*Stroke 39; 893-8:2008.*

### Background and Purpose

Attempts to reverse cerebral vasospasm (CVS) after aneurysmal subarachnoid hemorrhage (aSAH) rely on a limited number of treatments. Calcium channel blockers have proven a benefit but their vasodilating effect on spastic cerebral arteries is relatively modest. Milrinone, a phosphodiesterase inhibitor, combines vasodilating and inotropic properties, but limited data exist to support its use for the treatment of CVS. We assessed the efficacy and tolerance of milrinone in patients with CVS secondary to a SAH.

### Methods

Twenty-two consecutive patients with angiographically-proven CVS (arterial diameter reduction >40%) have been studied. Intraarterial milrinone was infused in the cerebral territory(ies) involved and followed by continuous intravenous infusion until Day 14 after initial bleeding. We evaluated angiographic reversal of CVS, hemodynamic tolerance, and neurological outcome 1 year after a SAH.

## Results

Thirty-four selective intraarterial infusions of milrinone were required to treat 72 vasospastic territories. Intraarterial milrinone resulted in  $53 \pm 37\%$  increase in arterial diameter ( $P < .0001$ ). Milrinone infusion resulted in moderately increased heart rate, but systemic arterial pressure remained unchanged. Five patients (23%) had angiographically-proven vasospasm recurrence within 48 hours after the procedure. Two of them were successfully reversed after another intraarterial infusion of milrinone. The remaining 3 underwent mechanical angioplasty. Two patients (9%) died in ICU, and 2 were lost to follow-up. All other patients had very good neurological outcome (modified Rankin scale:  $0.8 \pm 1.0$ ; Barthel index: 100 [95-100]).

## Conclusions

This study suggests that milrinone is effective and safe for reversal of CVS after a SAH and should be tested in a large randomized trial.



## Long Working Hours and Cognitive Function

### The Whitehall II Study

**Marianna Virtanen, Archana Singh-Manoux, Jane E. Ferrie, David Gimeno, Michael G. Marmot Marko, Elovainio, Markus Kokela, Jussi Vahtera and Mika Kivimaki**

*American J Epidemiology 169; 596-605:2009.*

This study examined the association between long working hours and cognitive function in middle age. Data were collected in 1997-1999 (baseline) and 2002-2004 (follow-up) from a prospective study of 2,214 British civil servants who were in full-time employment at baseline and had data on cognitive tests and covariates. A battery of were measured at baseline and at follow-up. Compared with working 40 hours per week at most, working more than 55 hours per week was associated with lower scores in the vocabulary test at both baseline and follow-up. Long working hours also predicted decline in performance on the reasoning test (Alice Hem 4-1). Similar results were obtained by using working hours and a continuous variable; the associations between working hours and cognitive function were robust to adjustments for several potential confounding factors including age, sex, marital status, education, occupation, income, physical diseases, psychosocial factor, sleep disturbances and health risk behaviors. The study shows that long working hours may have a negative effect of cognitive performance in middle age.

Cognition; middle aged; prospective studies; vocabulary; work

### TRAVEL GRANT

ISNACC will award Travel Grant to suitable candidates to either visit one of the premier Neuroanaesthesiology centres in India or to present one or more free papers in the ISNACC annual conference. A fixed sum of Rs. 10,000/- each will be awarded to 2 candidates who must fulfill the following criteria:

- Should be a life member of ISNACC.
- If the grant is for attending the annual conference, he or she must present a free paper as first author.
- Should provide a certificate attesting that he or she is a Junior Resident or Senior Resident.

Application along with documents supporting your candidature should reach the ISNACC Secretariat by 31 December 2010.

### RESEARCH GRANT

ISNACC will award one research grant to a suitable candidate to carry out clinical research in the field of Neuroanaesthesia and critical care in India. A fixed sum of Rs. 10,000/- will be awarded to one candidate who must fulfill the following criteria:

- Candidate must be a life member of ISNACC
- Working certificate in Dept. of Neuroanaesthesia has to be submitted from the HOD.
- Ethics committee's approval is mandatory.
- Information pertaining to any other financial assistance for the project from other sources must be provided.
- Four copies of the research project, in the proper format should be submitted to the Secretariat on or before 31st December 2010.

### NEWS ITEM

1. Dr. Manish Marda passed DM Neuroanaesthesiology in December, 2009 from AIIMS.
2. Dr. Suparna B. passed DM Neuroanaesthesiology in December, 2009 from Sree Chitra Tirunal Institute of Medical Sciences and Technology

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