Correspondence

The concepts of assent and parental permission in pediatrics

The recently published article by Narchi et al[1] brings an important empirical insight into a very complex issue of parental consent for lumbar puncture (LP) in children; quite worrisome observation from authors' clinical practice that almost half of the parents refused to give consent for the LP is confirmed.[1]

However, the concept of (parental) consent, used by Narchi et al,[1] would need to be further elaborated with introduction of two other important concepts in pediatrics-child's assent and parental permission. The concepts were endorsed by the policy statement of the American Academy of Pediatrics (published in 1995; reaffirmed in 2011).[2] Accordingly, only the patients with appropriate decisional capacity could give their informed consent. In all other situations, parents provide informed permission for an intervention on their child, with assent of the child if appropriate.[2] Most of children from age seven are thought to understand basic information if adequately presented.[3] The need for assent was also supported by the Confederation of European Specialists in Pediatrics, stating that all children have a right to give their assent (or dissent) and may refuse interventions that are not necessary to save their lives or prevent serious harm.[4] Furthermore, the responsibility to make decision in children is shared between physicians and parents. The later should provide informed permission before interventions (except in emergency situations), which includes all the elements of informed consent, reflecting the child's best interests.[2]

Informed permission should be sought for the non-urgent LP, if it is medically indicated.[2] Indeed, as suggested by Narchi et al,[1] a better understanding of the perceptions, beliefs and fears of parents is useful for developing appropriate solutions to prevent their refusal to the LP.[1] However, it is necessary to add, that also child's assent to the non-urgent LP (according to one's age/mental development) should be sought as eagerly as should be parental permission.

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We thank Dr. Groselj for his interest in our article and his comments. Although we always provided full information before obtaining parental consent for the intervention, he raised the issue of child's assent and parental permission.[1] He suggested that only the patients with appropriate decisional capacity could give their informed consent; in all other situations, parents should provide informed permission for an intervention on their child, with the child's assent, if appropriate The child, however, has a right to refuse interventions that are not necessary to save his/her life or prevent serious harm.[2] The implication is that the child's assent, assuming its appropriateness can be easily assessed, should overide the parents' decision, if it can clearly be established that they lack the appropriate decisional capacity. This is in sharp contrast with the same American Academy of Pediatrics (AAP) document which he cited, and which, interestingly, refers specifically to parents refusing diagnostic lumbar puncture, which has perhaps escaped Dr. Groselj's attention. It specifically advises that the physician should obtain parental permission to initiate the appropriate treatment rather than delaying care or risking liability for performing that procedure without appropriate authorization.[1] This is why we do not agree with his suggestion and opts to remain compliant with the AAP statement.

We embarked on the study to better understand the specific barriers for LP consent in our own environment. The law governing consent issues in the country where the study was held specifically gives the authority of consent to the parents until the child is 18 years old, as until then, he/she is considered as

a minor and, therefore, lacks the capacity to consent for himself/herself.[3] Although this may be different in other countries, ethical approval for the study mandates compliance with the local laws and policies and so does our medical practice.

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Eosinophil cationic protein in Henoch-Schönlein purpura

Henoch-Schönlein purpura, the most common childhood vasculitis, is often a self-limiting condition, with resolution within 2-8 weeks. Approximately 20%-40% of the patients develop a renal involvement.[1] Eosinophil cationic protein is a secretory ribonuclease which has been associated with cytotoxic, neurotoxic, fibrosis promotion and immune-regulatory functions and has been implicated in various disease conditions.[2] This study was undertaken to clarify a possible role of eosinophil cationic protein in Italian children with Henoch-Schönlein purpura.

Between 2009 and 2011, we prospectively analyzed serum levels of eosinophil cationic protein in 28 children with acute Henoch-Schönlein purpura. The diagnosis was made in children with palpable purpuric rash in the presence of at least one of the followings: abdominal pain, arthritis or arthralgia or pathological urinalysis.[3] The diagnosis of kidney disease was made in patients with pathological hematuria with or without concurrent proteinuria.[3] Serum samples for the determination of eosinophil cationic protein level by fluorescent immunoassay technique were taken in the patients after overnight fasting. The upper reference level of our assay was 15 μg/L. The study was approved by the Ethics Committee of our foundation. The data were analyzed for statistical significance by the Mann-Whitney *U* test, Fisher's exact test and simple regressions with the rank correlation coefficient. $P<0.05$ was considered statistically significant.

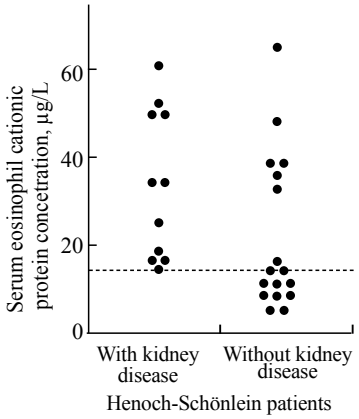

Fig. Serum eosinophil cationic protein levels in Henoch-Schönlein patients with (n=11) and without (n=17) kidney disease. The dashed line indicating the upper normal level for serum eosinophil cationic protein of 15 μg/L.

No kidney disease was noted in 17 children (6 boys and 11 girls, age range: 2-13 years). A kidney disease was noted in the remaining 11 children (7 boys and 4 girls, age range: 3-12 years). In patients with or without kidney disease, there was no significant difference in age and gender. The level of eosinophil cationic protein was increased in 9 of the 17 children (53%) without kidney disease and in 11 with kidney disease (Fig.). The blood eosinophil count, which was normal (≤0.5 G/L) in 24 and slightly increased in the remaining 4 patients, was not correlated with the level of eosinophil cationic protein.

Our data in Italian children indicated that the level of serum eosinophil cationic protein is often pathologically increased in Henoch-Schönlein patients without and always increased in those with kidney disease. The report was supported by observations in Asian children.[4,5]

In conclusion, our preliminary observations opened new perspectives for understanding the mechanisms involved in the cause of this vasculitis.

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Neonatal heart murmur: Is it useful for the diagnosis of congenital heart diseases?

Congenital heart disease (CHD) is one of the commonest congenital malformations, affecting 7-8 per 1000 live births, which are mostly asymptomatic at birth.[1] The prevalence of cardiac murmur varies from 0.6% to 47.4% and is dependent on sample size, auscultator conditions and skills of the examiner.[1-3] However, not all neonates with CHD are found to have a murmur at postnatal check, and those with murmurs will not have CHD. Wu et al[3] reported that if a murmur is heard, there is an incidence of 42.5% for cardiac malformations. In contrast, Du et al[4] mentioned that heart murmur in 84% of neonates was caused by heart diseases and only 16% were innocent with a diagnosis of heart disease confirmed by echocardiography. Moreover, Karatza et al[5] found that auscultation alone has a limited ability to distinguish a pathologic from innocent murmur.

We determined the clinical significance of heart murmur heard during the examination of 2869 neonates from April 1, 2012 to April 31, 2013. Each neonate was thoroughly examined by a pediatric resident. If a murmur was detected, it was reconfirmed by a pediatric consultant. All neonates with murmurs underwent echocardiography. The murmurs were detected in 76 neonates, of whom 37 had a cardiac malformation. The incidence of murmur was 26.49 per 1000 normal neonates. Of the 76 neonates with a murmur, 37 had a significant structural heart lesion (SHL), 16 had an insignificant SHL, i.e., physiological variant, and 23 had a normal echocardiograhic examination (Table). The incidence of CHD was 12.89 per 1000 during the study period. Although SHL was detected in the 37 neonates, 30 had a single SHL and 7 multiple SHL. Patent ductus arteriosus was the most common SHL (65.63%) followed by ventricular septal defect, atrial septal defect and pulmonary stenosis. We concluded that if a murmur is heard, there is an incidence of 48.68% for cardiac malformation. Therefore, murmur should be promptly detected by echocardiography. Although the presence or absence of heart diseases could be determined in most neonates, the lesion-specific diagnosis is not satisfactory. Echocardiography is necessary for neonates with a clinically diagnosis of heart disease.

Table. Distribution of various causes of heart murmur in neonates

Results of echocardiography	Number	Percentage, %
Significant cardiac lesions		
Patent ductus arteriosus	12	15.79
Ventricular septal defect	9	11.84
Atrial septal defect	5	6.58
Pulmonary stenosis	4	5.26
Transposition of the great arteries	3	3.95
Tetralogy of Fallot	1	1.32
Transposition of great vessels	1	1.32
Tricuspid atresia	1	1.32
Bicuspid aortic valve	1	1.32
Insignificant cardiac lesions (physiological variants)		
Patent foramen ovale	9	11.84
Tiny patent ductus arteriosus	5	6.58
Mild peripheral pulmonary stenosis	2	2.63
Normal	23	30.26
Total	76	100

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