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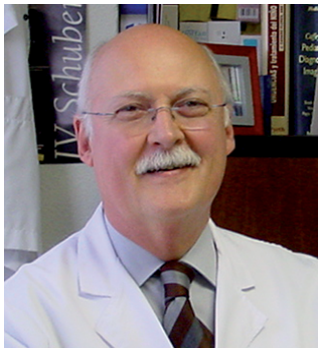
EDITORIAL

Late preterm, the "forgotten" infants. A personal perspective

Prematuros tardíos, los "olvidados". Una visión personal



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During the last years, I have witnessed the progress of neonatal intensive care. The application of CPAP, designed by Gregory back in 1971, as well as the adaptation and innovation of machinery and equipment for assisted ventilation specially focused on newborns, has produced a dramatic increase in survival among those who presented severe problems of respiratory failure, especially the large preterm infants.

Due to these advances, neonatologists believed that they were able to overcome all problems and turned their attention to this population of extremely preterm infants. However, what about the 'less premature', the so-called 'near term' infants? Well, they were absolutely forgotten, despite they have gave us all the background during the process. This group of children represents 70% of all preterm infants and it is mainly responsible for the increase in prematurity[1]. Those who was born between 34(+0) weeks and 36(+6) weeks of gestation, they are now called late preterm infants (LP) and they have finally been recognized as a population with a higher risk of neonatal morbidity and mortality compared to full term infants. This group does not only have respiratory problems, but also they have a higher risk of temperature instability, excessive weight loss and dehydration, sepsis, hypoglycemia and jaundice, requiring phototherapy. In addition to all these factors, the risk of neonatal mortality is 3 times higher than for the term infants[3].

Some studies have also shown that late preterm infants have a potential risk of presenting more complications in their neurological development. It is clear, though, that their risk is lower than in large preterm infants, but it is higher than full term infants. If it is true that there are no protocols for caring late preterm infants in the neonatal period, it is even more true if we take into account that this population is subsequently controlled, in its vast majority, by the primary care pediatrician or, in certain levels, by the family doctor or nurse practitioner in Primary Health Care, without clinical guidelines that could give some kind of alert to their specific risks.

Several studies published in leading pediatric magazines highlight that, compared to the healthy term infant's group, the LP have almost double risk to present difficulties in their neurological development, with lower performance in the communication area, cognitive development, learning and behavior, and presenting even psychiatric disorders in adulthood[4,5].

Table 1. Definitions of gestational ages categories

Preterm	< 37 weeks
Extremely preterm	< 28^0 weeks
Very preterm	28^0 a 31^6 weeks
Moderate preterm	32 a 33^6 weeks
Late preterm	34^0 a 36^6 weeks
Term	37^0 a 41^6 weeks
Early term	37^0 a 38^6 weeks
Full term	39^0 a 41^6 weeks
Postterm	42^0 weeks or more

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In Chile and in Spain, they were conducted some studies based on the monitoring of the late preterm infants, in order to detect the difficulties in their development, and also to explore useful methods for their early detection, giving more importance to those that require greater care or a closer monitoring[6,7].

Ten years after the adoption of the LP vulnerability point of view, the consciousness about the risk that has this group of children has increased, which has been reflected in the large number of articles published about this population[8]. During this period, the rate of late preterm births and obstetric intervention fell slightly in the USA[9,10]. However, there are still some outstanding challenges to overcome. Rebecca Rose and William Engle[1] outline the key to decrease the late prematurity number of cases: to prevent and to reduce risk pregnancies, in order to prevent late preterm births not indicated medically and to consider some procedures for the avoidance of perinatal morbidity, such as antenatal corticosteroids, as well as to transfer pregnant women who are at risk to centers with a greater operative capacity, and also the implementation of new obstetric protocols to assess a proper conclusion of preterm gestation without increasing maternal and infant mortality. Pediatricians should give the proper importance in performing a careful neonatal monitoring and postnatal monitoring for this population as well. It is necessary to define behaviors related to newborn care and, in terms of their development, to design long-term cohort studies to know the real impact on this population of preterm infants, to identify the groups with greatest risk and to evaluate the benefit of closer intervention programs, as has been demonstrated in extremely preterm infants[2].

Excessive care work makes it difficult for primary care pediatricians to apply sophisticated techniques that require time and specialists for their implementation. Accordingly, clinical research aims for validating screening questionnaires with the highest level of sensitivity and particularity, providing them a valuable instrument for the early detection of developmental difficulties risks[11,12].

In Spain, in 2011, the Spanish Society of Neonatology (SENeo in spanish) created the working group SEN34-36/ACUNA, which has as main objective a perinatal database of this population and provide a uniform monitoring program up to 6 years. In this group, 45 spanish hospitals participate actively, from all levels of care, in which more than 10,000 late preterm infants were registered. The website allows access to interested pediatricians who want to make a more comprehensive monitoring of these children. The publication of the analysis of the collected data is coming soon, on the next study.

The practice of medicine prompts every professional to achieve the research, in the measure adjusted to his field of work. The great prestige of basic or laboratory research has, in a certain way, relegated clinical researchers to anonymity. All these factors, based on experience and daily observation, have developed small-scale advances but, together, they provide great benefits in medical practice.

The social and technological evolution has caused that the exercise of medicine is not individual, not anymore. Formerly, great figures represented the maximum knowledge and created school. Currently, the teams of the large sanitary facilities are the scientific and assistance references. If they do not belong to them, with large volumes of patients and facilities of the highest level, it would make health centers of lower volume or primary care in secondary places from the research point of view. Nothing could be further from reality. Individual concern, along with the need to communicate personal or group experiences, is the incentive to seek improvement in our daily practices. Collaboration between centers at different levels of care and primary care is essential for optimum results. The capability of observation, self-criticism and teamwork is an essential part of knowledge development. The increase of our knowledge is not a matter of attending many patients, but of performing an excellent attention in each one of them.

Currently, the support of computer technology and social networks, allows us to have a universal library and the possibility of contacting professionals who are physically distant, but with whom we could share common interests. To collect data and to know how to handle all that information provides a solid foundation for clinical research. This amount of technological and communication possibilities, as well as the kind character of those professionals who know how to share their knowledge and the common goal to improve the recovery of our little patients, is what actually allows the best of the results.

It is surprising to acknowledge the enormous effort the means to achieve good results in our profession. Several hours and resources have been spent on research projects that have not all been successful, and even led to erroneous results, not only because of ill will, but because of a lack of self-criticism and perhaps because of too much confidence in mathematics. The physician's work must consider as a primary objective to improve the quality of life of his peers, as well as the prevention of diseases and the understanding towards the one who suffers, in order to perform a great labor. The previously mentioned should occupy the first level of dedication and observation. It may seem hard, however we must give up arrogance, and increase humility and our capability of a closer contact with the reality of those who need us the most.

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