



Fig. 1 1- Patient 3. 10-year-old male with Gianotti-Crosti syndrome-like reaction to molluscum contagiosum. (1a) Inflamed MC lesions in the thigh. (1b) Inflammatory oedematous red papules on the elbows. (1c) Pink papules on the knees, Koebner response secondary to scratching.

2- Patient 1. 8-year-old female with Gianotti-Crosti syndrome-like reaction to molluscum contagiosum. (2a) Inflamed MC in the cervical area. (2b-c) Oedematous pink to red papules on the elbows and knees.

patients with MC found GCLRs in 34 patients (4.9% of cases): in 23 of them (67.6%) involving exclusively the extensor surfaces of the extremities, and in the remaining 12 (35.3%) restricted to the knees and/or elbows.⁵

Gianotti-Crosti syndrome-like reactions are characterised by lichenoid papules around the elbows, knees and buttocks. There is no association between the number of MC lesions and the development of GCLRs.⁵ This reaction may be present at the initial visit (50%) or 1 to 2 months after initiation of treatment of MC (38%), independently of the treatment received.⁵ In children, Gianotti-Crosti eruptions are usually associated with viral infections (EBV or hepatitis), with development of asymptomatic skin lesions usually preceded by a low-grade fever, sore throat or general discomfort. These patients experience a severe, intensely itchy inflammatory response to MC with development of these characteristic lesions, which in most cases is followed by resolution of MC within days or weeks.

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Newborn screening for congenital hypothyroidism: a 13-year observational study[☆]



Cribado neonatal de hipotiroidismo congénito: estudio observacional de 13 años

Dear Editor:

Newborn screening is an important method for the early detection and treatment of congenital defects, and it plays

a key role in improving children's health.¹ Many countries consider newborn screening an important national public health programme, and screening for certain diseases is widespread. Newborn screening for detection of congenital hypothyroidism (CH) is performed worldwide since the 1970s and has proven useful for the detection of this disease. We conducted a retrospective study in which we analysed the clinical data corresponding to CH screening for the past 13 years, focusing on the distribution of the results, the optimal cut-off points for definition of positive results, possible associated factors, etc.

A signed informed consent form was obtained for screening of each newborn. The dried blood spot (DBS) samples

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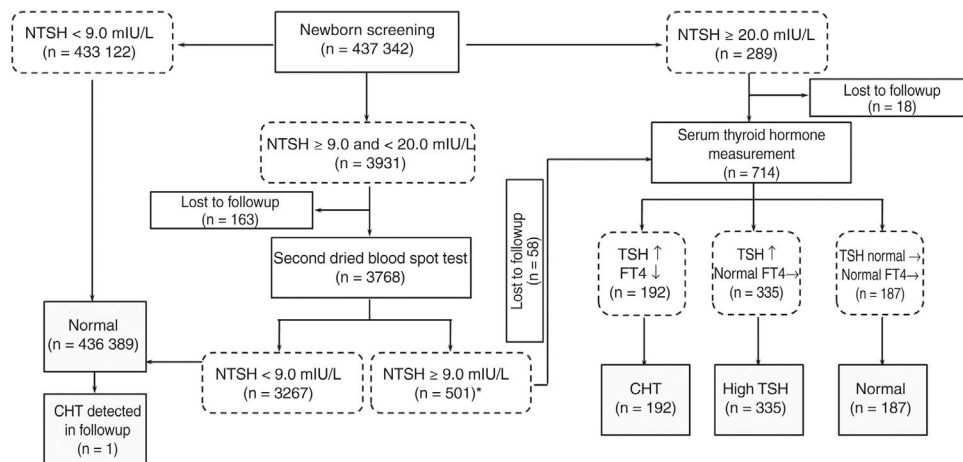


Figure 1 General results of the study.

Note: *From Jan 2006 to Dec 2009, we used the cutoff as 8.5 mIU/L. During the period, 5 cases of CH and 9 of hyperthyroxinemia were diagnosed with additional recall. Their NTSH were between 8.5 and 9.0.

CH, congenital hypothyroidism; FT4, free thyroxine; NTSH, neonatal thyroid stimulating hormone level; TSH, thyroid stimulating hormone level.

were collected from the infants on 903 filter paper at 72 h post birth. The level of thyroid stimulating hormone (TSH) in the samples was measured by means of time-resolved fluoroimmunoassay (TRFIA). In case of a positive result, serum levels of TSH and free thyroxine (FT4) were measured by electrochemical immunoassay (ECIA).

The study includes a total of 437,342 newborn infants for whom consent was given to perform screening. Fig. 1 shows the overall results of the study. A total of 192 infants ultimately received a diagnosis of CH, corresponding to 105 boys and 87 girls. The incidence of CH was of 1 case per 2278 births, which was consistent with the average reported for China.² At the same time, this diverged slightly from the incidence in other countries.

In the group of infants with CH, the median level of TSH was 46.10 mIU/L (interquartile range [IQR], 17.90–120.00), compared to 2.39 mIU/L in infants with normal test results. In the subsequent serologic tests, the median serum level of TSH was 75.0 mIU/L (IQR, 75.00–75.00) and the median level of FT4 was 5.14 pmol/L (IQR, 2.83–8.39). The cut-off value used for detection of CH between January 2006 and December 2009 was 8.5 mIU/L. During the period under study, an additional 5 cases of CH were diagnosed, and the serum TSH levels in these infants were 8.58, 8.82, 8.86, 8.87 and 8.95 mIU/L. Screening for CH has been widespread for many years and is proven to be effective. However, a growing number of experts is trying to determine the optimal TSH threshold that should be used to differentiate infants with CH from otherwise healthy newborns and minimise the frequency of false positive results. In order to optimise the TSH threshold, we plotted receiver operating characteristic (ROC) curves and calculated the corresponding areas under the curve (AUCs) with the data of our 430 thousand patients. The AUC for detection of CH was 0.996 applying a cutoff of 9.0 mIU/L. The corresponding sensitivity, specificity, precision, positive predictive value (PPV) and negative predictive value (NPV) were 96.89%, 99.13%, 99.13%, 4.70% and 99.99%, respectively. The optimal cut-off value in our study was

8.58 mIU/L, as it yielded the best combination of sensitivity (99.48%) and specificity (97.70%). Similar studies have been carried out in other countries, corroborating that optimization of the TSH threshold can improve the effectiveness of CH screening.^{3,4} We also believe that it is necessary to adjust the TSH threshold for local populations through the analysis of retrospective data.

Evidence from various studies suggests that CH is associated with multiple factors. The season of birth is one of factors that have attracted the attention of researchers. Table 1 showed the data of the association between the screening indicators and the season of birth. We found that the newborn screening programme of CH achieved the best results in the fourth trimester of the year, with an AUC greater than 0.99 and a precision of more than 95%. This was similar to the results reported by Khanjani et al.⁵ Several authors have identified different factors that may be involved in the association between the prevalence of CH and the season of birth, such as viral infection, differences in climate, living conditions, or the differences in iodine levels that exist between geographical areas.⁵

In conclusion, our analysis of a large clinical sample confirmed that the incidence of CH was reliable and the newborn screening programme was effective. However, the yield of screening programmes can still be improved by adjusting the TSH thresholds applied in local screening programmes and correcting for possible confounding factors, such as the season.

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Table 1 Association between screening indicators and season.

Months	Number of newborns	CHT	Prevalence (/10 000)	TSH median (IQR)	False positive rate	AUC	95% CI
January–March	104 461	41	3.92	2.78 (1.68– 4.34)	1.34%	0.9958	0.9936–0.9981
April–June	94 226	37	3.93	2.29 (1.35– 3.59)	0.70%	0.9902	0.9763–0.999
July–September	107 419	46	4.28	2.19 (1.29–3.41)	0.52%	0.9985	0.9977–0.9994
October–December	130 998	69	5.27	2.60 (1.57– 4.03)	0.89%	0.9983	0.9974–0.9993
Total	437 103 ^a	193 ^b	4.42	2.47 (1.47– 3.86)	0.87%	0.9961	0.9930–0.9992

AUC, area under the curve; CH, congenital hypothyroidism; CI, confidence interval; IQR, interquartile range; TSH, thyroid-stimulating hormone.

^a The analysis did not include the data of 239 babies who were lost to followup.

^b Screening failed to detect 1 case of CHT.

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Adhesive sutures using cyanoacrylate in pleural drains of premature infants[☆]



Suturas adhesivas mediante cianoacrilato en drenajes pleurales de prematuros

Dear Editor:

Cyanoacrylates are tissue adhesives used to join tissues. From a chemical perspective, they belong to the alkyl cyanoacrylate family and are differentiated by their side chain composition.^{1,2} Specifically, Histoacryl® consists of *n*-butyl-2-cyanoacrylate and is indicated for wound closure, sclerotherapy and mesh fixation. In its liquid state, it is a monomeric compound that polymerises on application to tissue, forming a three-dimensional network that keeps tissue edges together. The advantages of using cyanoacrylates as opposed to conventional suturing include their easy

application, minimal scar formation and that they form a bacteriostatic, haemostatic, waterproof, and biodegradable barrier.^{1–3}

Cyanoacrylates have been widely used as an alternative option for wound closure in adult and paediatric patients, especially in emergency settings or in delicate areas such as the face, as they do not require the use of local anaesthesia required for suturing, are quicker to use, are less painful, cause less redness, are associated with a lower rate of infection and achieve better cosmetic outcomes. All of the above make their use cost-effective.⁴

There are few studies in the literature concerning the use of these adhesives in newborn infants. Tissue adhesive has been used for creating stomas in very low birth weight preterm infants with good results,⁵ and was used to close a bronchopleural fistula in a full-term newborn.⁶

In the field of neonatology, the traditional approach to closure after removal of a chest drains was the purse string suture, which had poor cosmetic outcomes. Later on, a new approach was used to close the wound caused by placement of the chest drain with one or two silk suture stitches to prevent recurrence of the pneumothorax or persistence of the fistula. This is a painful and stressful procedure that requires sedation and analgesia, which have side effects in newborns that cannot be overlooked. Furthermore, its cosmetic effects are also not ideal.^{4,5}

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