



**JOINT MEETING**  
In pediatria e medicina dell'adolescenza  
Sobre pediatria y medicina de la adolescencia

21-22-23-24 **2015** CATANZARO  
**OTTOBRE ITALIA**



# Casi clinici

**CHI CERCA ...  
TROVA**



G. Raiola, V. Talarico



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**OTTOBRE** **ITALIA**



# 1° caso clinico

Bimbo di 18 mesi giungeva alla nostra osservazione per dolori addominali, vomito ed inappetenza insorti 6 giorni prima

ANAMNESI FAMILIARE E PATOLOGICA REMOTA: negative.

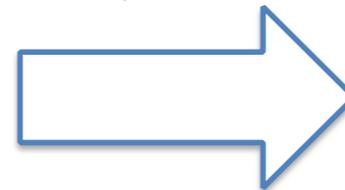
## ESAME OBIETTIVO

- Segni vitali normali
- no febbre
- Agitazione
- Disidratazione lieve-moderata (6%)
- Obiettività toraco-cardiaca-addominale negativa
- Peso 7.1 kg (-4.7 SDS), altezza 71 cm (-2.9 SDS),

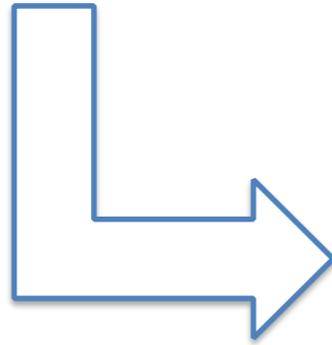
EGA ph: 7,44  
pCO<sub>2</sub> 40 mmHg  
HCO<sub>3</sub><sup>-</sup> 30 mmol/L  
BE 3.2  
Na 143 mEq/l      K 4,2 mEq/l



SDS)



Dopo 3 ore progressivo miglioramento del vomito



Dopo 6 scomparsa del vomito ma incremento del dolore addominale con assoluto rifiuto all'alimentazione

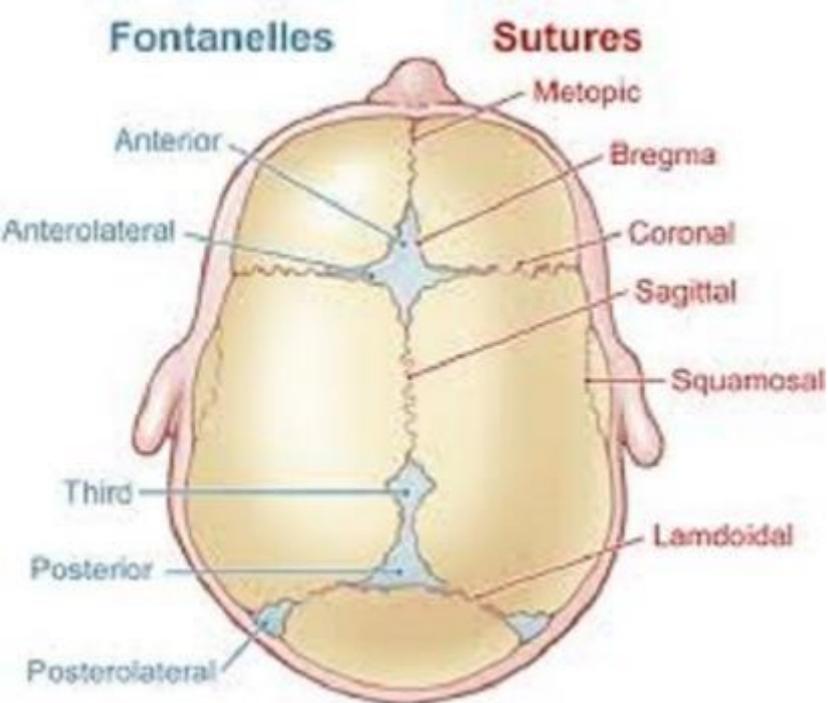
**Il bambino non evacuava da 5 giorni**





-Storia di stipsi da 2 mesi

-Non assunzione di farmaci, eccetto supplementazione con Vitamina D da 3 mesi



(100.00

Vit A):

2 ml al giorno

## ESAMI DI LABORATORIO

### EMOCROMO

GR 5530000, HB 14.6 g/dl, HT 42 %, MCV 75 fl  
MCH 23,6 pg, PLT 525.000,  
GB 9.600, (N 54,4%, L 29%)



Calcio sierico 11.8 ma/dl (range 0.2-1.3)

**Intossicazione da  
Vitamina D**

25- idrossi-vitamina D(25-OHD)  
2.271 ng/ml (range 30-100)

Paratormone <3 pg/ml (range 4.6-58.1)

## Vitamin D intoxication

Behzat Özkan<sup>1</sup>, Şükrü Hatun<sup>2</sup>, Abdullah Bereket<sup>3</sup>

**PEDIATRICS**  
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Rara  
sup,

**Vitamin D Intoxication Due to an Erroneously Manufactured Dietary Supplement in Seven Children**  
Cengiz Kara, Figen Gunindi, Ala Ustyol and Murat Aydin  
*Pediatrics* 2014;133:e240; originally published online December 2, 2013;  
DOI: 10.1542/peds.2013-0711

da parte dei  
per ritardo  
ritardo cammino, o  
stentata crescita

**Figura 1.** Stato vitaminico D in base alle concentrazioni circolanti di 25-OH-D durante l'età evolutiva e possibili conseguenze dell'ipovitaminosi D. I valori normali di 25-OH-D sono compresi tra 20 e 100 ng/ml. Valori >150 ng/ml possono associarsi ad ipercalcemia. Valori <20 ng/ml sarebbero indicativi di una condizione di

*The Turkish Journal of Pediatrics 2012; 54: 93-98*

*Review*

## Vitamin D intoxication

Behzat Özkan<sup>1</sup>, Şükrü Hatun<sup>2</sup>, Abdullah Bereket<sup>3</sup>

*Departments of Pediatric Endocrinology, <sup>1</sup>Istanbul Medeniyet University Faculty of Medicine, İstanbul, <sup>2</sup>Kocaeli University*

Def

Rac

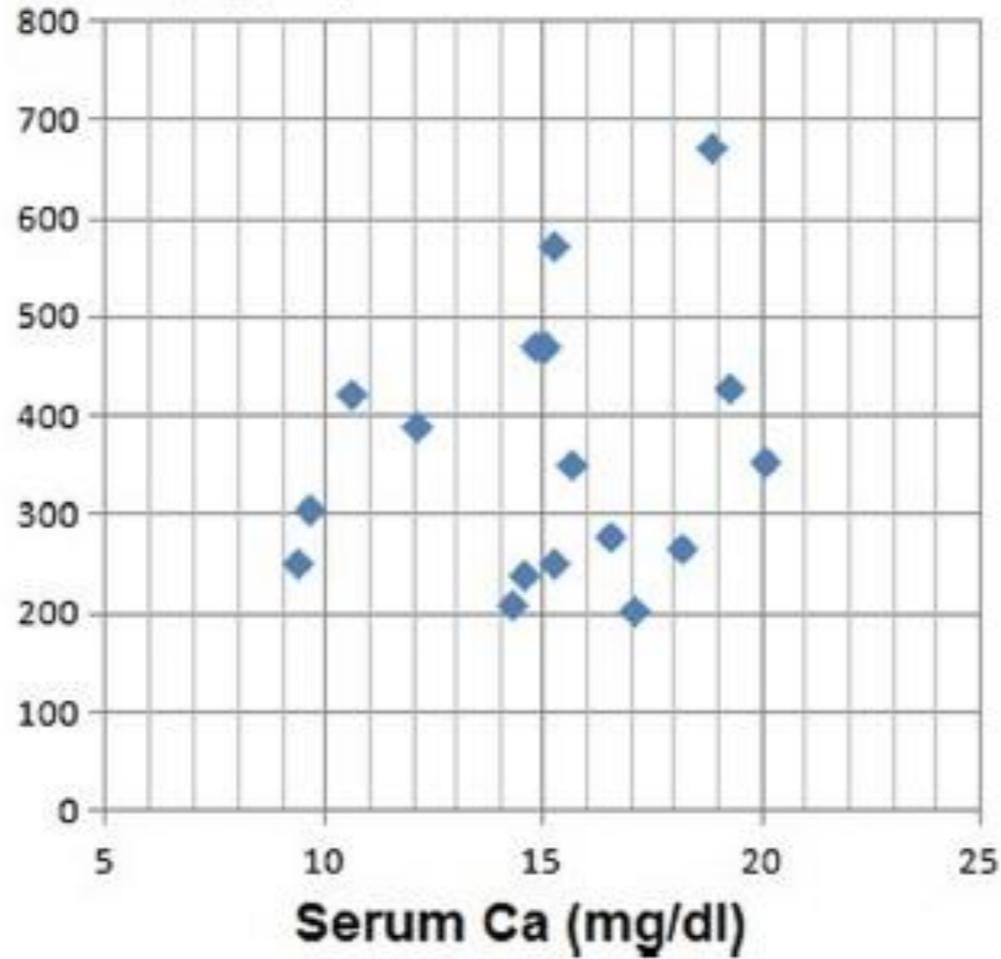
and sarcoidosis, in addition to excess oral or parenteral intake of vitamin D<sup>2,5-7</sup>. There is no consensus on the dose of oral vitamin D that leads to intoxication; individual variability must be considered with VDI<sup>4</sup>. In studies conducted on animals, the toxic dose has been reported as 0.5 mg/kg (20,000 IU/kg), whereas the lethal dose (LD 50) has been reported as 88 mg/kg (3.5 millions IU/kg). However, in humans, the mean lethal dose (LD50) of vitamin D has been reported as 21 mg/kg (840,000 IU/kg)<sup>8,9</sup>.

# Vitamin D Supplementation and Risk of Toxicity in Pediatrics: A Review of Current Literature

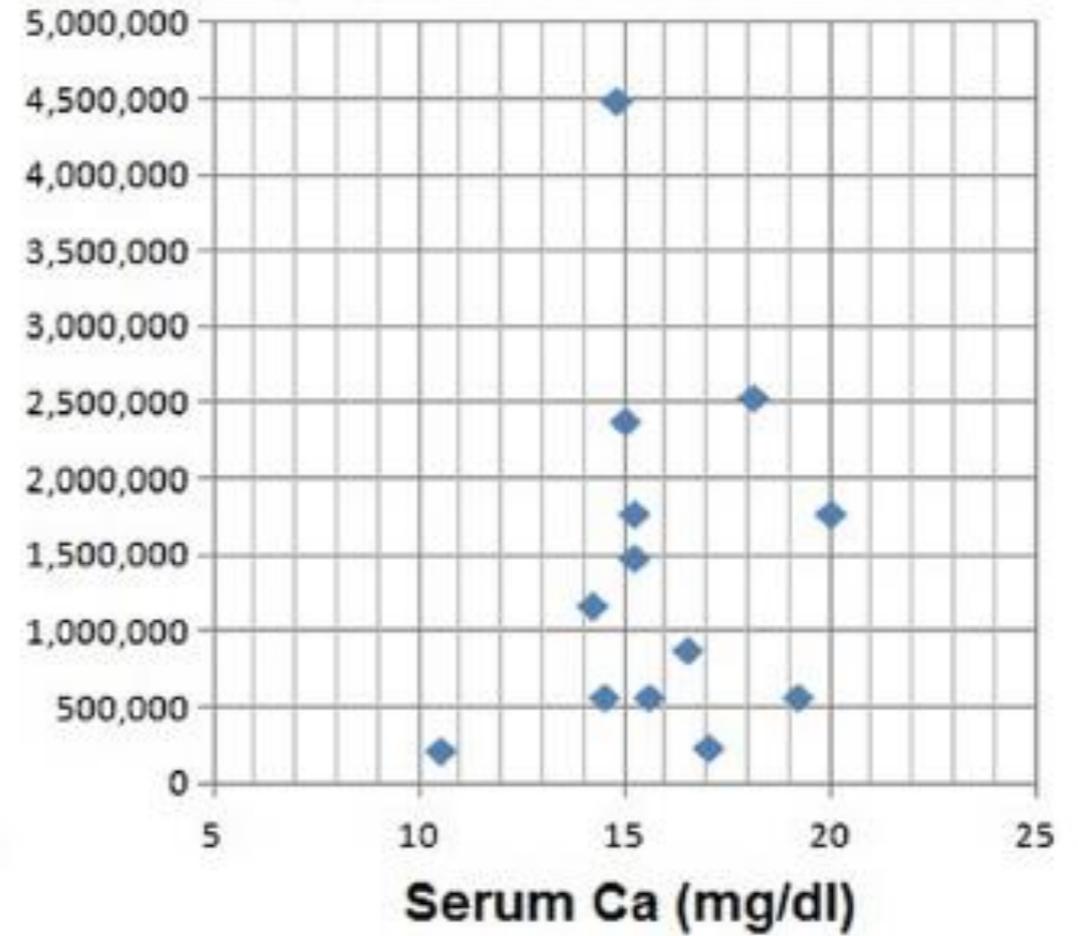
Maria G. Vogiatzi, Elka Jacobson-Dickman, Mark D. DeBoer, for the Drugs, and Therapeutics Committee of The Pediatric Endocrine Society

Weill Cornell Medical College (M.G.V.), New York, New York 10065; SUNY Downstate Medical Center (E.J.-D.), Brooklyn, New York 11203; and University of Virginia Health System (M.D.D.), Charlottesville, Virginia 22908

**25OHD (ng/ml)**

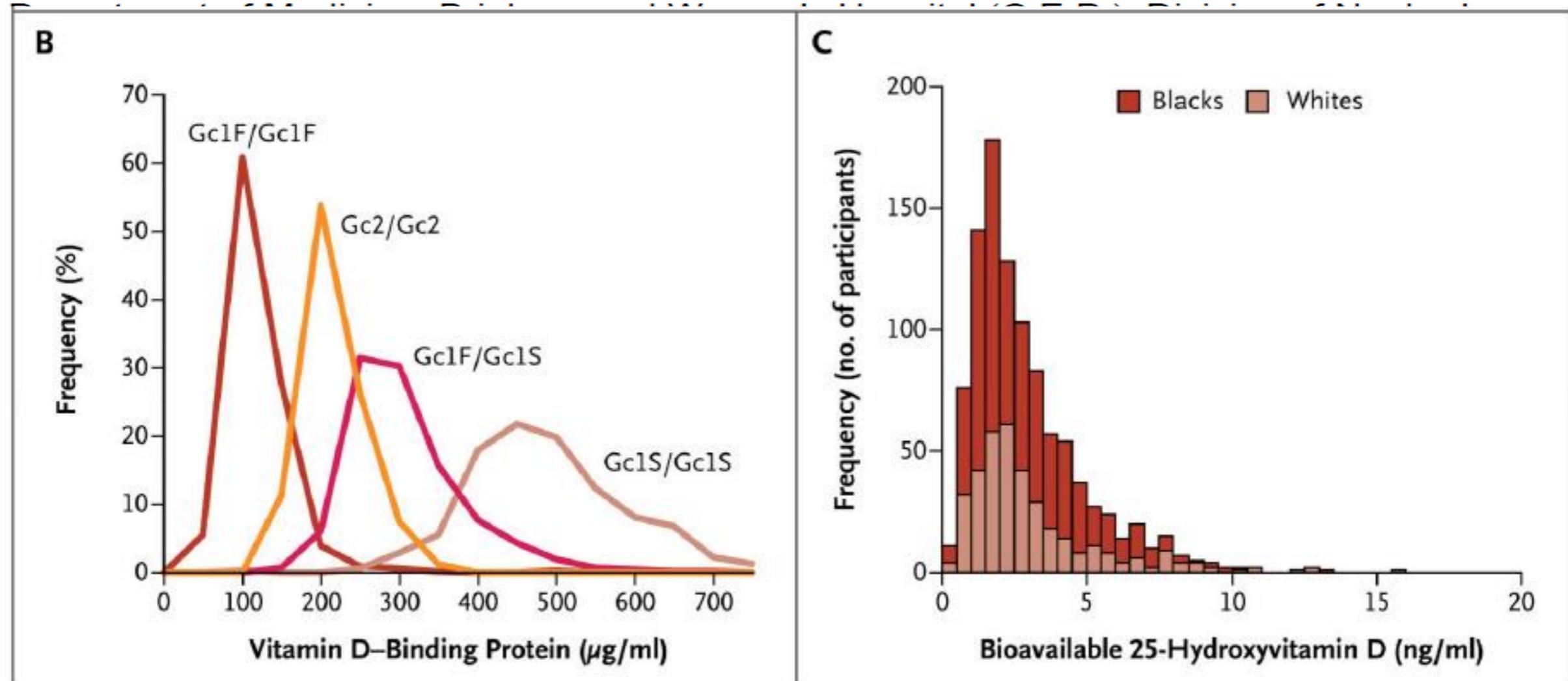


**vit D intake (IU)**



## Vitamin D–Binding Protein and Vitamin D Status of Black Americans and White Americans

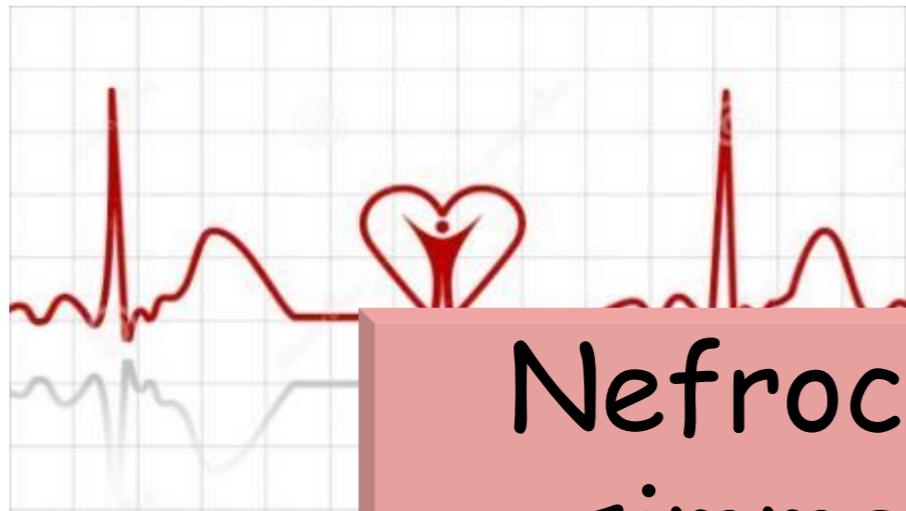
Camille E. Powe, M.D., Michele K. Evans, M.D., Julia Wenger, M.P.H., Alan B. Zonderman, Ph.D., Anders H. Berg, M.D., Ph.D., Michael Nalls, Ph.D., Hector Tamez, M.D., M.P.H., Dongsheng Zhang, Ph.D., Ishir Bhan, M.D., M.P.H., S. Ananth Karumanchi, M.D., Neil R. Powe, M.D., M.P.H., M.B.A., and Ravi Thadhani, M.D., M.P.H.



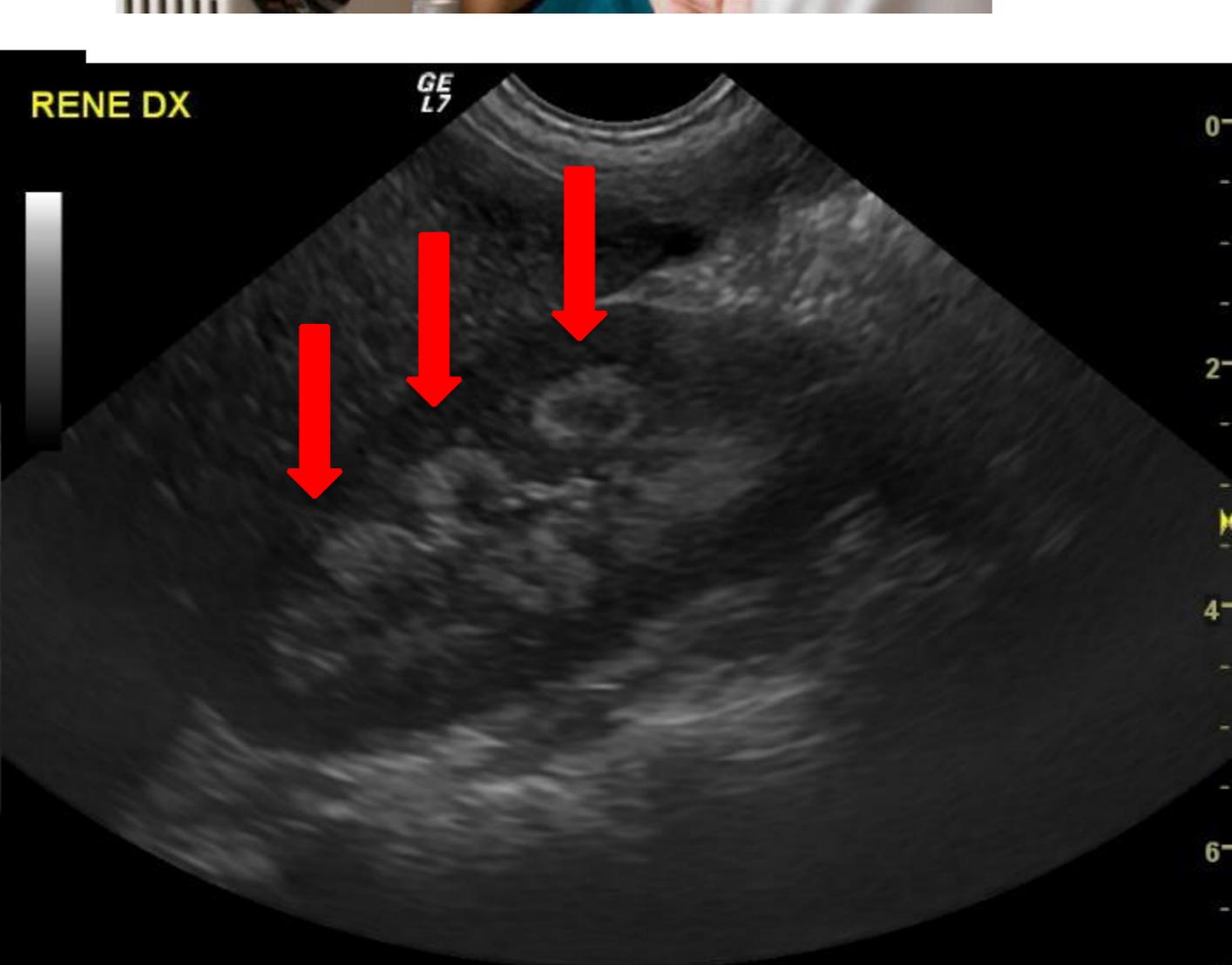
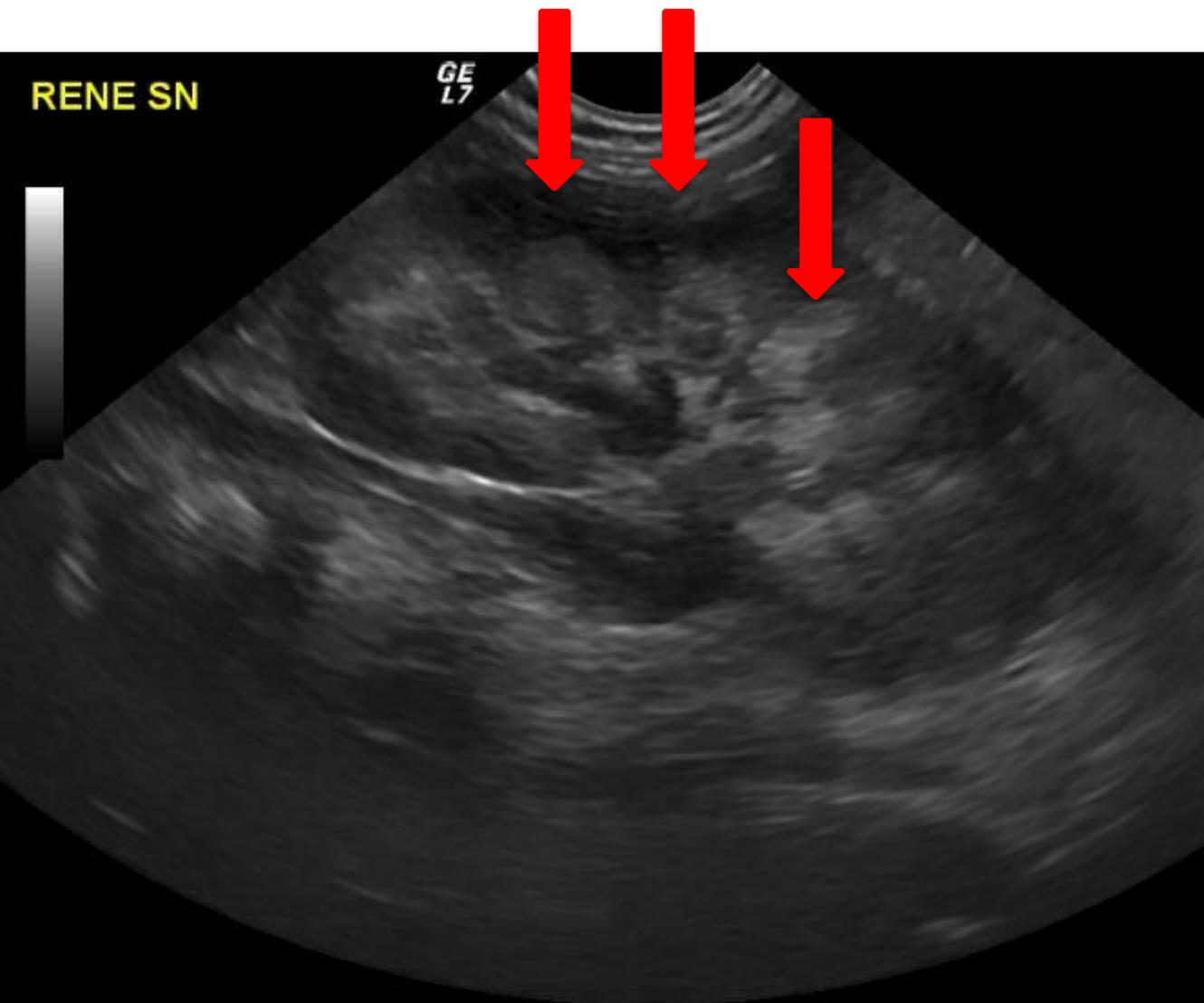
Vitamin D binding protein polymorphic variants play an important role in vitamin D levels and effects.

Table II. Symptoms and Findings Associated with Hypercalcemia due to Vitamin D Intoxication <sup>15,16</sup>

Gastrointestinal	<ul style="list-style-type: none"> <li>- Nausea and vomiting</li> <li>- <u>Anorexia, abdominal pain</u></li> <li>- <u>Intestinal decreased motility, constipation</u></li> <li>- <u>Growth retardation, pancreatitis, peptic ulcer</u></li> </ul>
Renal	<ul style="list-style-type: none"> <li>- <u>Polydipsia, polyuria, dehydration and fever</u></li> <li>- Hematuria, hypernatremia, hypomagnesemia, hypokalemia</li> <li>- Nephrolithiasis, nephrocalcinosis, distal renal tubular acidosis</li> <li>- Nephrogenic diabetes insipidus, chronic interstitial nephritis</li> <li>- Acute and chronic renal failure</li> </ul>
Central nervous system	<ul style="list-style-type: none"> <li>- Hypotonia, paresthesia</li> <li>- Deep tendon reflexes reduction, headache</li> <li>- Confusion, seizures, cerebral vasospasm</li> <li>- Mesial temporal sclerosis, apathy, lethargy, stupor, coma</li> <li>- Psychiatric disorders (anxiety, psychosis, hallucination, depression)</li> </ul>
Cardiovascular	<ul style="list-style-type: none"> <li>- Arrhythmia, bradycardia (QT interval shortening, QRS widening, PR elongation, ST elevation, T- wave and U- wave widening)</li> <li>- Heart valves, coronary arteries and myocardial fibers-accumulation of calcium</li> <li>- Hypertension</li> <li>- Cardiomyopathy</li> <li>- Cardiac arrest</li> </ul>
Musculoskeletal	<ul style="list-style-type: none"> <li>- Muscle weakness</li> <li>- Bone pain</li> <li>- Osteopenia/osteoporosis</li> <li>- Long bones metastatic calcification</li> <li>- Osteopetrosis</li> </ul>
Eyes	<ul style="list-style-type: none"> <li>- Band keratopathy</li> <li>- Conjunctival calcification</li> </ul>
Skin	<ul style="list-style-type: none"> <li>- Metastatic calcification</li> <li>- Itching</li> </ul>



# Nefrocalcinosi midollare simmetrica bilaterale



urinary Ca/creatinine ratio: 0,8 mg/mg (N<0.21)

# Terapia

---

Idratazione endovenosa

Diuretici dell'ansa

glucocorticoidi

Calcitonina

bifosfonati



# Terapia

Idratazione endovenosa

soluzione fisiologica 150 ml/Kg/die

**Tiazidici**

Idratazioni

Diuretici

e a 1-2 mg/kg/die,  
ogni 4-6 ore



# Terapia

Idratazione endovenosa

Diuretici dell'ansa

glucocorticoidi

Prednisone 1-2 mg/kg/die



# Terapia

Idratazione endovenosa

diuretici dell'ansa

glucocorticoidi

Calcitonina

1-2 UI/Kg/dose, in 2-4 dosi



# Terapia

Idratazione endovenosa

Diuretici dell'ansa

glucocorticoidi

Calcitonina

bisosfonati

pamidronate 0.5-1 mg/kg/dose

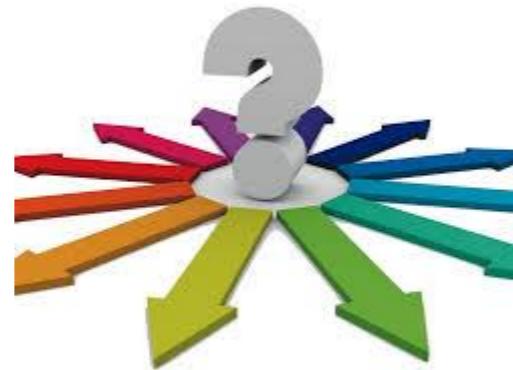


## Patient report

Elif Sagsak\*, Senay Savas-Erdeve, Meliksah Keskin, Semra Cetinkaya and Zehra Aycan

## The use of pamidronate for acute vitamin D intoxication, clinical experience with three cases

costoso



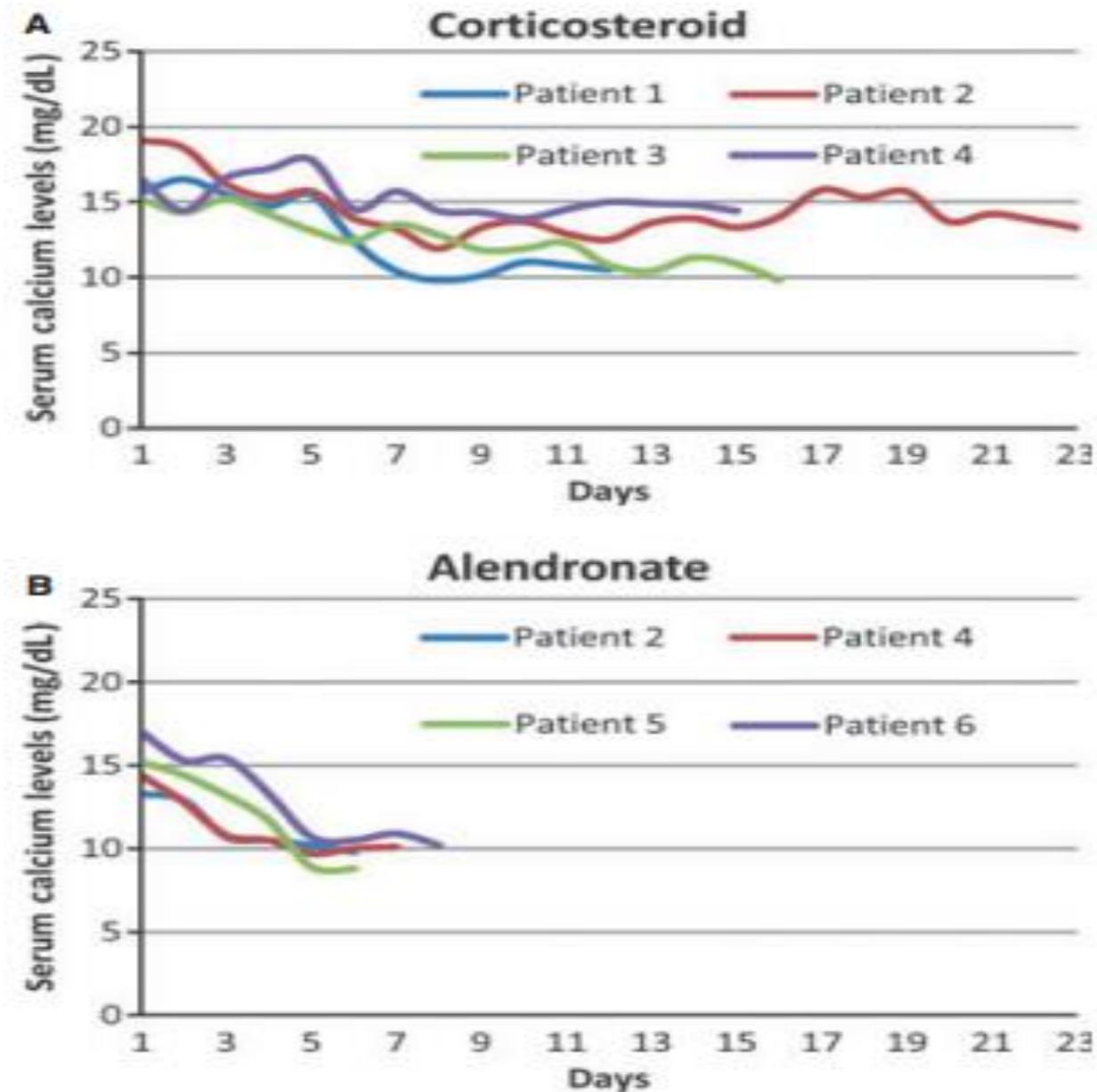
Severi effetti collaterali

In 2003, **alendronate** per os è stato usato per la prima volta in un bambino per il trattamento dell'ipercalcemia da intossicazione da Vitamina D (partendo da una dose di 5 mg/die e incrementando a 10 mg/die)

## Comparison of oral alendronate versus prednisolone in treatment of infants with vitamin D intoxication.

Sezer RG<sup>1</sup>, Guran T, Paketçi C, Seren LP, Bozaykut A, Bereket A.

Article information



**Figure 1** (A) Serum calcium levels of patients on corticosteroid treatment. (B) Serum calcium levels of patients after single oral dose of alendronate (Patient 2 and 4 were switched to alendronate treatment after 23 and 15 days of corticosteroid treatment, respectively).

# Take home messages

La terapia con Vitamina D se effettuata con criterio ed attenzione, seguendo le indicazioni delle linee guida, risulta efficace e sicura

Bisogna porre attenzione a tutte le terapie effettuate dai bambini, senza sottovalutare integratori alimentari e/o farmaci complementari

Bisogna essere sicuri che i genitori abbiano capito correttamente la prescrizione, per evitare eccessive assunzioni





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**OTTOBRE** **ITALIA**



# 2° caso *clinico*

Ragazzo di 16 anni giunge alla nostra osservazione per la presenza di paralisi facciale

Fronte con poche rughe

dal lato affetto  
l'occhio viene chiuso  
parzialmente per la paresi  
del muscolo orbicolare.

Fenomeno di Bell caratterizzato dalla rotazione del bulbo oculare verso l'alto nel tentativo non riuscito di chiudere l'occhio

lato affetto  
stirato e  
l'aspetto a

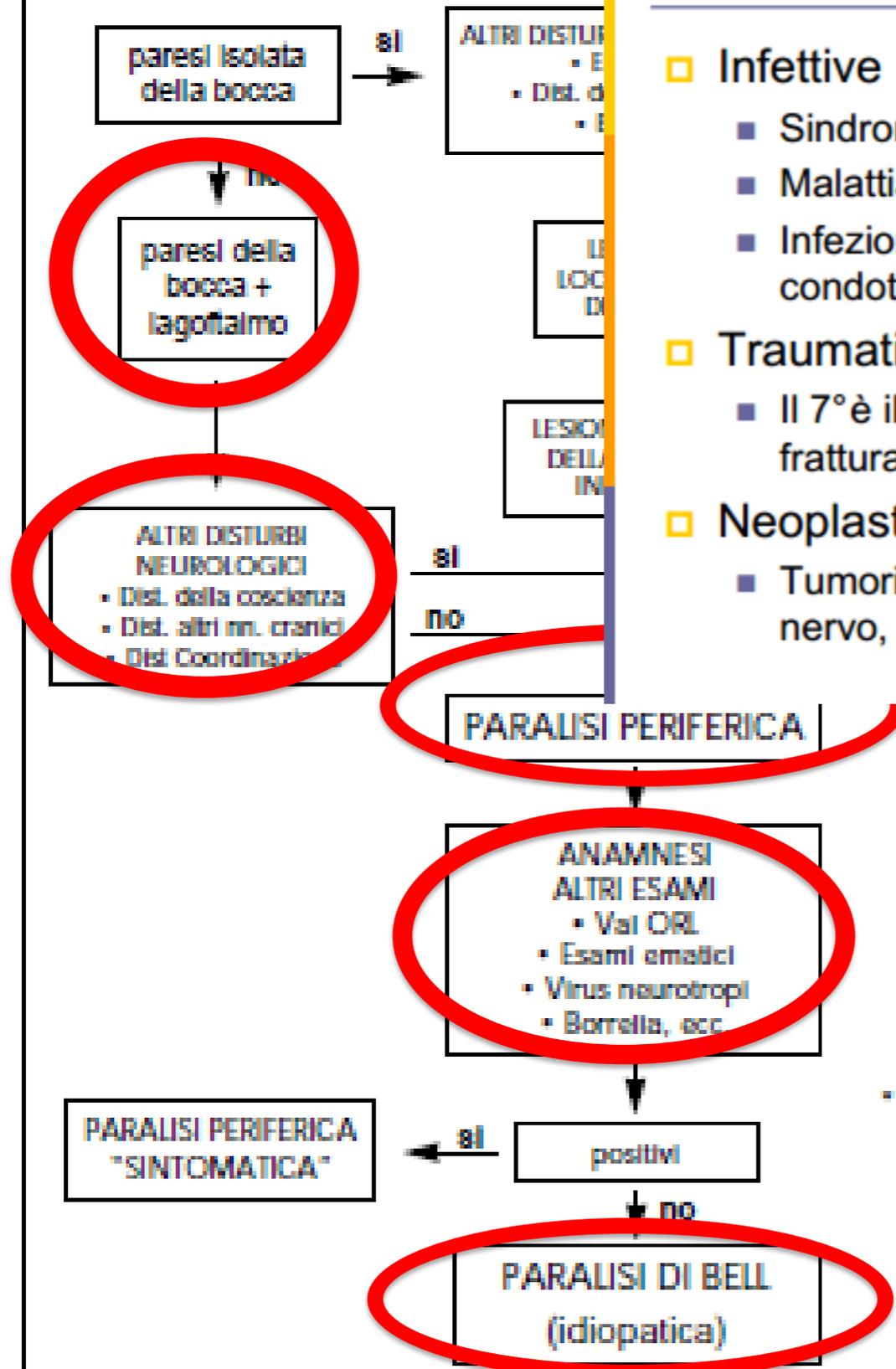
# Paralisi periferica facciale

l'emirima dal lato affetto  
risulta essere più bassa  
della controlaterale



## TENTATIVO DI SINTESI

### ASIMMETRIA DEL VISO



## Altre paralisi del facciale

### □ Infettive

- Sindrome di Ramsay Hunt
- Malattia di Lyme
- Infezioni batteriche dell'orecchio medio, della mastoide o del condotto uditivo esterno

### □ Traumatiche

- Il 7° è il nervo più frequentemente coinvolto nei traumi cranici fratturativi (frattura dell'osso temporale)

### □ Neoplastiche

- Tumori del nervo o di qualsiasi struttura, lungo il decorso del nervo, che invadono o comprimono il nervo

\* Se la paralisi è bilaterale ricordarsi della Poliradicolonevrite!

Figura 3

# ESAMI DI LABORATORIO

**Emocromo:** GR: 5.820.000/mmc, Hb: 13,7 g%  
ml, Hct: 38%, GB: 12.600/mmc)



Funzionalità epatica e renale nella norma

Borrellia, Virus neurotropi, ecc:negativi

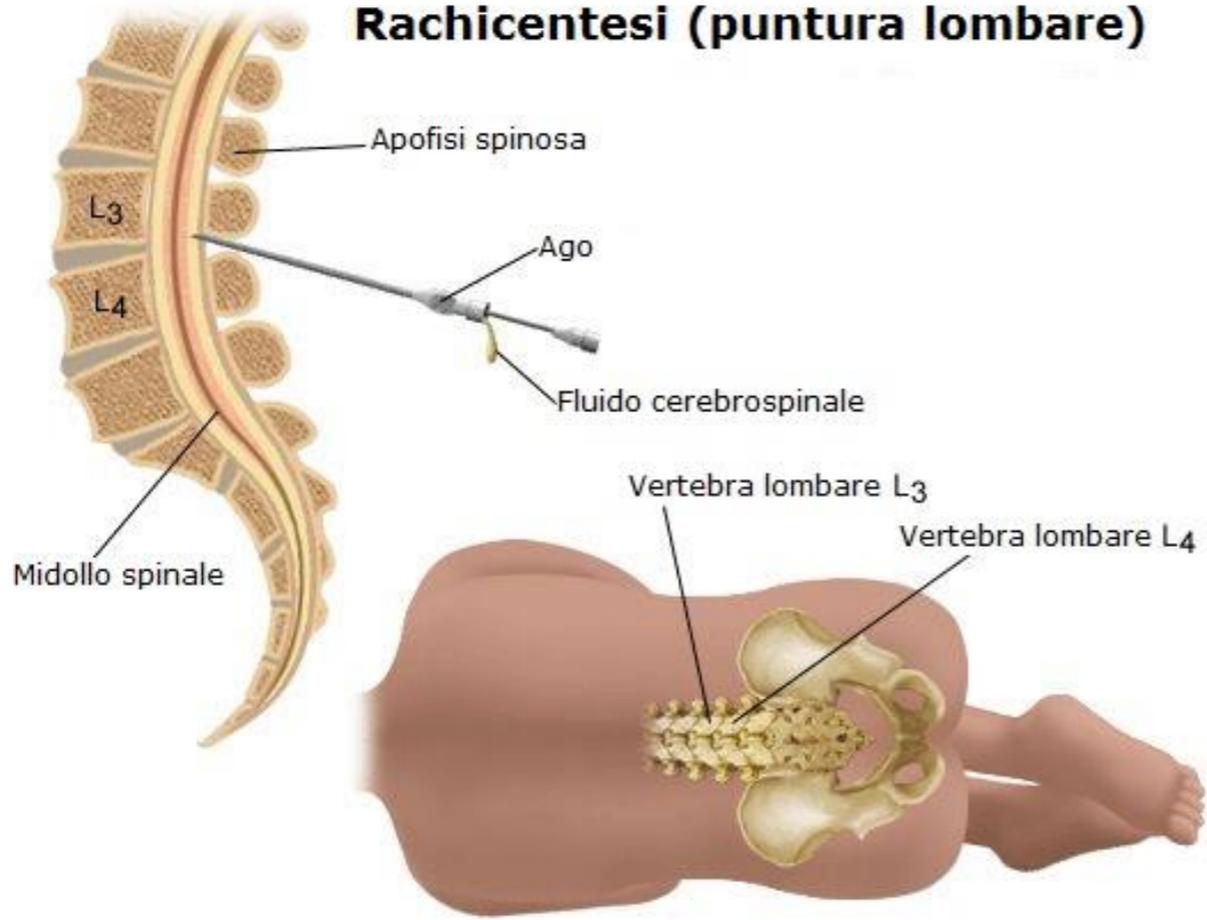


Emerse che il ragazzo da alcuni giorni  
ori e



alte vie

# Rachicentesi (puntura lombare)



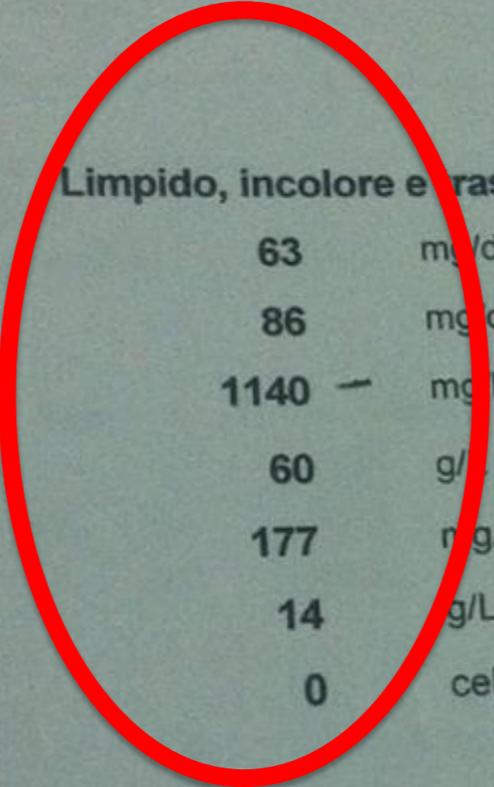
- Dissociazione albumino-citologica

- Rapporto alb liquor/siero 19 (v.n.7,4)

## MICROBIOLOGIA

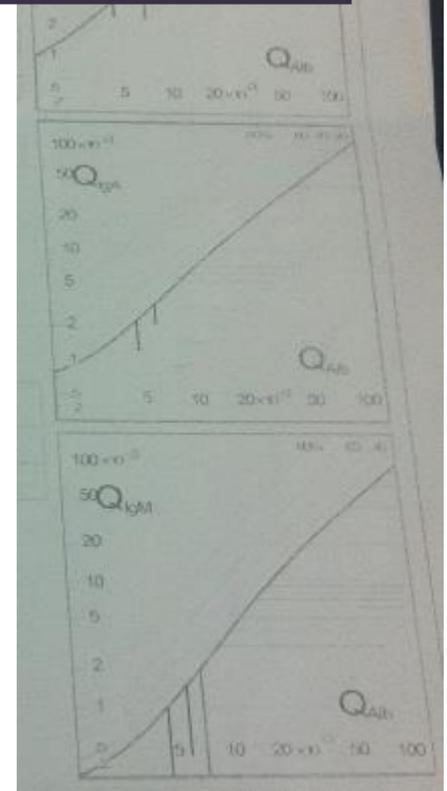
### INQUADRAMENTO DIAGNOSTICO LIQUOR

- ES. FISICO:  
(Met. ottico)
- GLUCOSIO su LIQUOR:  
(Met. enzimatico)
- GLUCOSIO su SIERO:  
(Met. enzimatico)
- ALBUMINA su LIQUOR:  
(Met. nefelometrico)
- ALBUMINA su SIERO:  
(Met. nefelometrico)
- IgG su LIQUOR:  
(Met. nefelometrico)
- IgG su SIERO:  
(Met. nefelometrico)
- CONTA CELLULE AL CONTAGLOBULI:  
(Contaglobuli: citofluorimetria in fluorescenza)



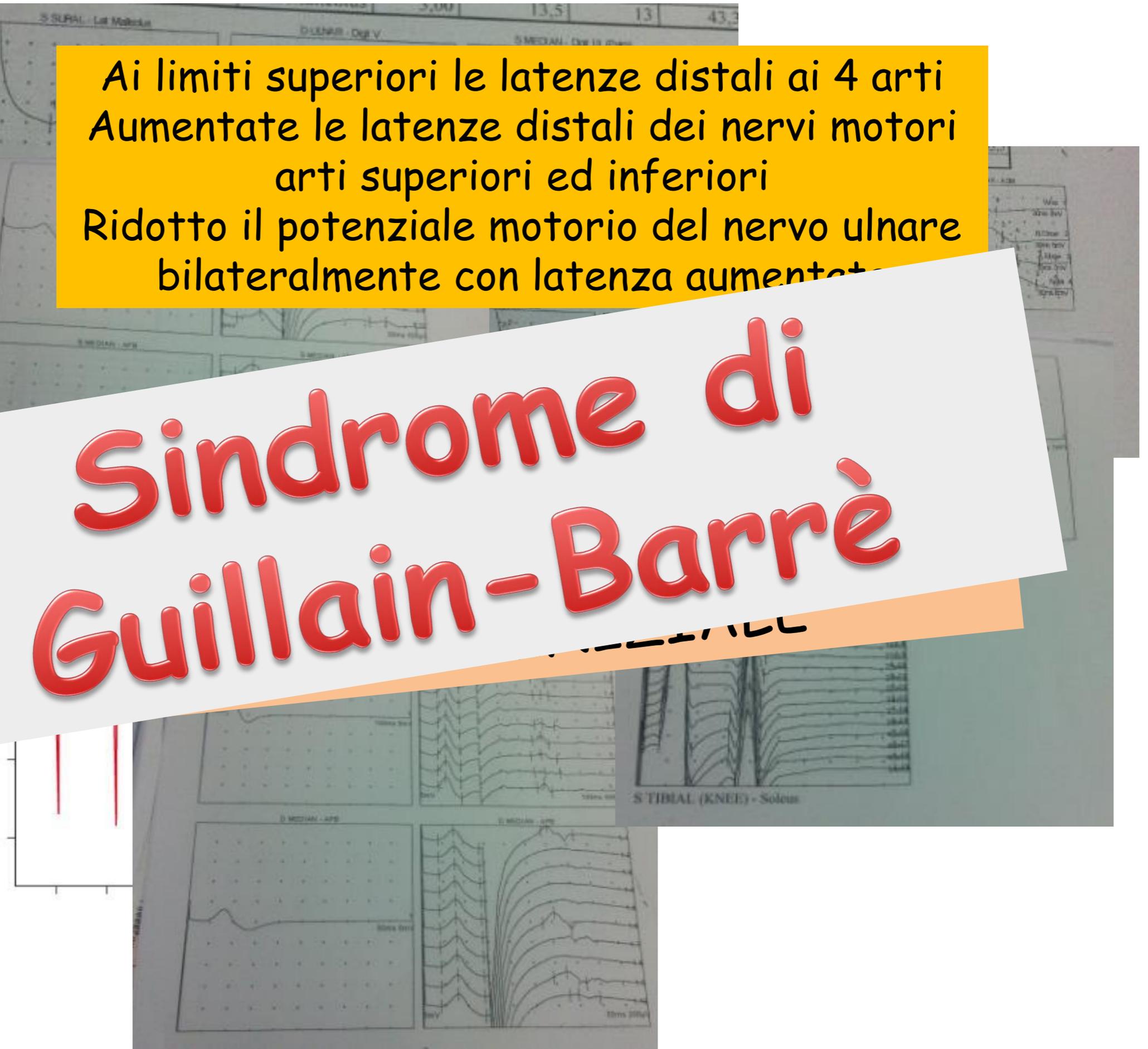
Limpido, incolore e trasparente

63	mg/dl	(40 - 70)
86	mg/dl	(70 - 100)
1140	mg/l	(0 - 350)
60	g/l	(35 - 60)
177	ng/l	(0 - 34)
14	g/L	(7 - 16)
0	cellule/ul	POSITIVO > 25 cellule/ul



Ai limiti superiori le latenze distali ai 4 arti  
Aumentate le latenze distali dei nervi motori  
arti superiori ed inferiori  
Ridotto il potenziale motorio del nervo ulnare  
bilateralmente con latenza aumentata

# Sindrome di Guillain-Barré



## Guillain-Barré syndrome: clinical profile and management

### Sindrome di Landry-Guillain-Barré-Strohl

una poliradicoloneuropatia infiammatoria demielinizzante a decorso acuto e/o subacuto, caratterizzata da infiltrati linfocitari e macrofagici a livello dei nervi periferici e delle radici nervose e da distruzione della mielina

1 a 4 soggetti su 100.000 tra adulti e bambini/anno

Età infantile: soprattutto fra i 4 e i 9 anni di età e rara sotto i 2 anni

#### Tabella I. Le poliradicoloneuropatie

##### POLIRADICOLONEUROPATIE IMMUNOMEDIATE

###### ■ Poliradicoloneuropatie acute

- Sindrome di Guillain-Barré
- Sindrome di Miller Fisher
- Neuropatia assonale acuta motoria
- Neuropatia assonale acuta sensitivo-motoria

###### ■ Poliradicoloneuropatie croniche

###### ■ Polineuropatie in corso di malattie autoimmuni sistemiche

- Lupus eritematoso sistemico
- Sindrome di Sjögren
- Malattia celiaca

###### ■ Polineuropatie in corso di vasculiti

- Panarterite nodosa
- Porpora di Schönlein-Henoch

###### ■ Polineuropatie paraneoplastiche

##### POLINEUROPATIE IN CORSO DI MALATTIE SISTEMICHE

- Diabete mellito
- Disfunzioni tiroidee
- Porfiria
- Crioglobulinemia
- Amiloidosi
- Gammopatie monoclonali

##### POLINEUROPATIE CARENZIALI

- Deficit di vitamina B6
- Deficit di vitamina B12
- Deficit di acido folico

##### POLINEUROPATIE IATROGENE E TOSSICHE

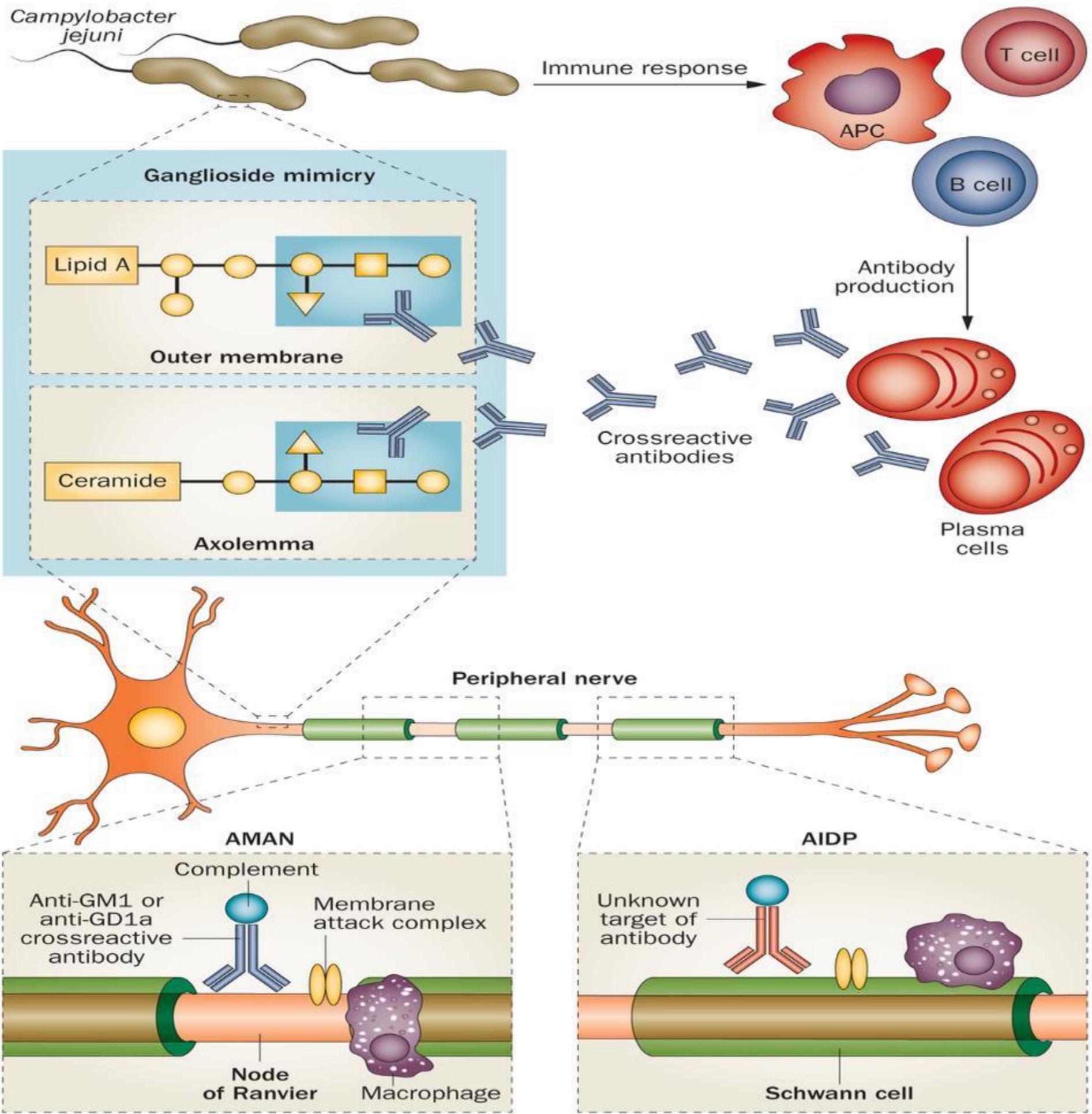
## Guillain-Barré syndrome: clinical profile and management

Etiology of GBS is not completely understood but believed to be due to autoimmune cause where majority of cases are triggered by infection stimulating and ganglioside antibodies production. Approximately 70% of cases of GBS occur 1–3 weeks after an acute infectious process. The organisms thought to be involved are *Campylobacter jejuni* (diarrhea), *Mycoplasma pneumonia*, *Haemophilus influenzae*, cytomegalovirus, Epstein-Barr virus and influenza [13]. Administration of outmoded anti-rabies vac-



## Etiology

- *Campylobacter jejuni*, *Helicobacter pylori*, *Mycoplasma pneumoniae*
- West Nile virus, Epstein-Barr Virus, Echo Virus, Coxsackie Virus, Influenza Virus
- Mumps, Measles
- Vaccines against rabies, influenza, poliomyelitis (oral), conjugated meningococcal vaccine particularly serogroup C and recently with H1N1.
- Some Surgery



## Risk Factors:

- Possibly Autoimmune
- Association with Immunizations
- Frequently preceded

# GUILLAIN-BARRE' SYNDROME

Original Article

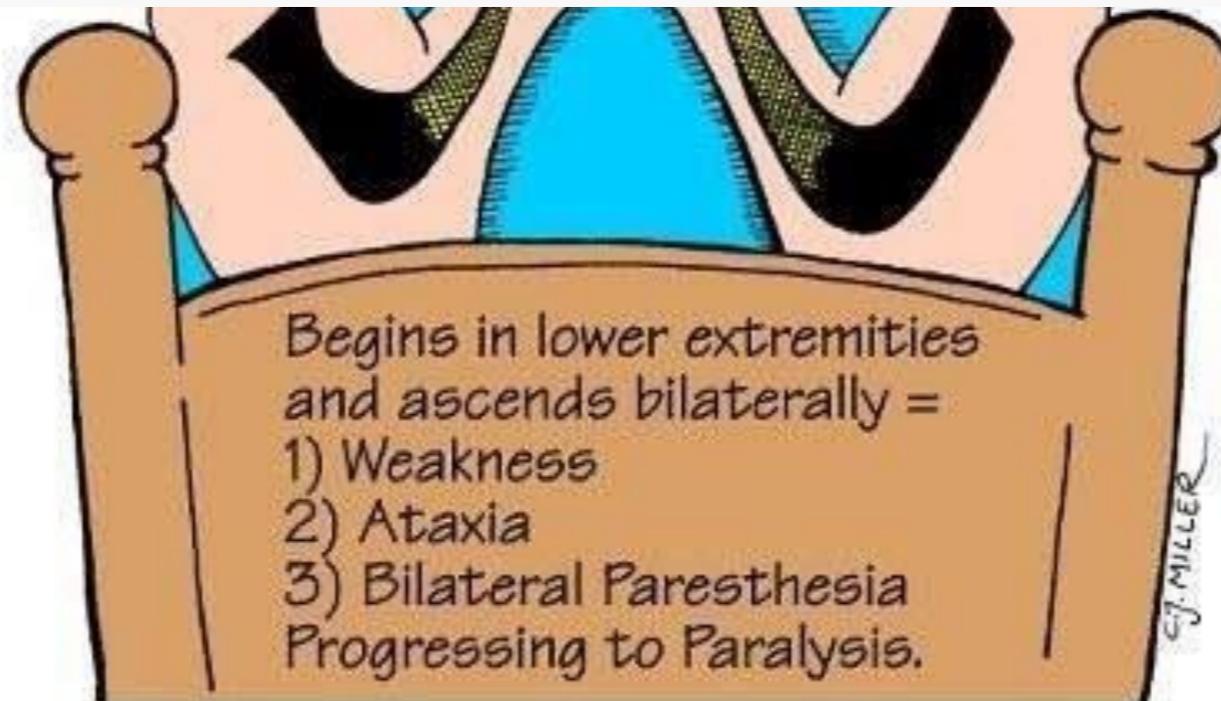


## Clinical Profile of Guillain Barre Syndrome

Shubhangi Vithal Dhadke<sup>1</sup>, Vithal Narayan Dhadke<sup>2</sup>, Sachin S Bangar<sup>1</sup>, Milind B Korade<sup>3</sup>

in 40-70% of the patients the first neurological symptoms were tingling, numbness, paraesthesia or pain in the toes

Atrophy



Asymmetrical Paralysis

Causes Problems With:

- Respiration
- Talking
- Swallowing
- Bowel & Bladder Function

**paralisi**

**ascendente**

**bilaterale**

# ORIGINAL ARTICLE

## Atypical

How to cite this article  
Findings

### Discussion

We have reported eight of the total patients who symptoms of GBS as upper limb weakness (3%), neck stiffness (3%), weakness) (9.1%), headache. Jin Park et al. reported an atypical GBS presentation of geophthalmoplegia (visual disturbance and postural dizziness; The clinical symptoms of a 10-year-old child with ptosis and weakness.



## Children

Ghofrani M. Atypical  
4):17-22.

Paralisi faciale??

# Guillain-Barré Syndrome: A Clinical Study of Twenty Children

Journal of Clinical and Diagnostic Research. 2015 Jan, Vol-9(1): SC09-SC12

## I. Features required for diagnosis

(A) Progressive motor weakness of more than one limb

(B) Loss of tendon jerks

## II. Features strongly supportive of the diagnosis

### (A) Clinical features

1. Progression over four weeks

2. Relative symmetry of weakness

3. Mild sensory symptoms or signs

4. Cranial nerve involvement

5. Recovery, usually beginning two to four weeks after progression stops

6. Autonomic dysfunction

7. Absence of fever at the onset of neuritic symptoms

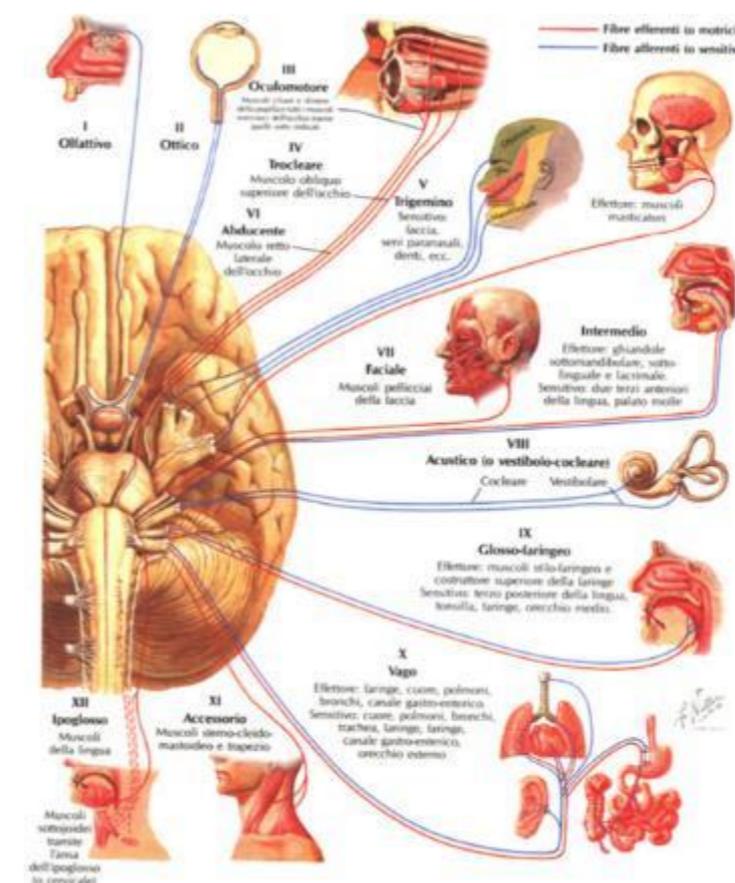
### (B) CSF\* features

1. CSF protein raised after the first week of symptoms

2. Counts of 10 or fewer mononuclear leucocytes  $\times 10^6/l$

### (C) Electrodiagnostic features

Reduction of conduction velocity, conduction block or abnormal temporal dispersion, increased distal latency or abnormal F wave in more than one nerve



[Table/Fig-1]: Diagnostic criteria for Guillain-Barré syndrome after Asbury and Cornblath [5]  
\*CSF=cerebrospinal fluid



# LETTER TO EDITOR

## Guillain-Barre Syndrome Presenting With Bilateral Facial Nerve Palsy

How to Cite This Article: Inaloo S, Katibeh P. Guillain-Barre Syndrome Presenting With Bilateral Facial Nerve Palsy. Iran J Child Neurol 2014 Winter; 8(1):70-72.

PubMed

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Trending articles

### Publication dates

5 years  
10 years  
Custom range...

### Species

Humans  
Other Animals

### Age

**Child: birth-18 years**  
Infant: birth-23 months  
Adult:  
Adult: 19-44 years  
Aged: 65+ years  
Customize ...

### Search results

Items: 5

Filters activated: Child: birth-18 years. [Clear all](#) to show 16 items.

[Delayed facial weakness in Guillain-Barré and Miller Fisher syndromes.](#)

1. Tatsumoto M, Misawa S, Kokubun N, Sekiguchi Y, Hirata K, Kuwabara S, Yuki N. Muscle Nerve. 2015 Jun;51(6):811-4. doi: 10.1002/mus.24475. Epub 2015 Jan 9. PMID: 25287079 [Similar articles](#)

[Acute motor-sensory axonal Guillain-Barré syndrome with unilateral facial nerve paralysis after rotavirus gastroenteritis in a 2-year-old boy.](#)

2. Kamihiro N, Higashigawa M, Yamamoto T, Yoshino A, Sakata K, Nashida Y, Maji T, Fujiwara T, Inoue M. J Infect Chemother. 2012 Feb;18(1):119-23. doi: 10.1007/s10156-011-0300-8. Epub 2011 Sep 14. PMID: 21915637 [Similar articles](#)

[Acquired facial palsy with hypertension secondary to Guillain-Barre syndrome](#)

Search results  
Items: 16



Unusual presentation of more common disease/injury

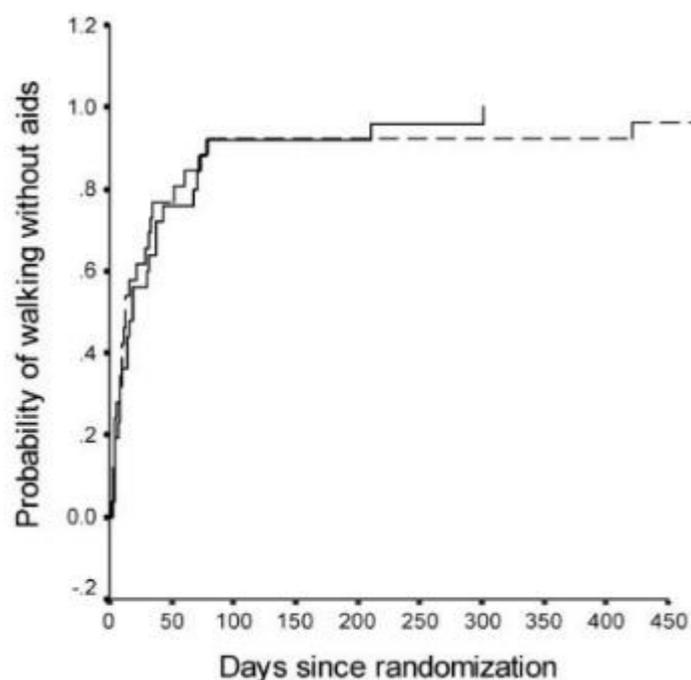
## Unilateral facial palsy in Guillain-Barre syndrome (GBS): a rare occurrence

Rajesh Verma, Tejendra S Chaudhari, Prithvi Giri

As aforementioned, facial palsy in GBS is usually bilateral, but, it maybe asymmetrical and uncommonly unilateral involvement may be seen.<sup>2</sup> The facial nerve palsy in GBS is secondary to direct attack of antibodies either causing demyelination or axonal degeneration depending on the type of antibody involved. However, hypertension which is commonly seen in GBS due to autonomic disturbances, may also contribute to facial paralysis.<sup>2</sup> Although exact mechanism of hypertension causing facial palsy is poorly understood, it has been proposed that it could be because of edema or haemorrhage within the facial canal causing neural compression. This is especially true in paediatric population.<sup>6</sup> In a review of 35 children with severe hypertension, Lloyd *et al*<sup>6</sup> found that LMN-type facial palsy occurred in seven patients (20%).

**Tab I.** Classe di evidenza e livello di raccomandazione delle IVIG nelle malattie neurologiche del bambino.

Malattia		Classe di evidenza	Livello di raccomandazione
GBS		II	A
CIDP		III	B
JMG	crisi miastenica	II	B
	Th a lungo termine	IV	C
JDM		III	C
Opsoclonio-mioclono		IV	C
Encefalopatia di Rasmussen		IV	C
Epilessia intrattabile del bambino		IV	C
Encefalite anti NMDA-R		IV	C
ADEM, SM/NO		IV	C



**Fig 1.** Time to recovery of ability to walk without aids. The solid line indicates 1 g/kg IVIG over 2 days; the dashed line indicates 0.4 g/kg IVIG over 5 days. In the Kaplan-Meier analysis with the log-rank test, the difference between groups was not significant ( $P = .94$ ).

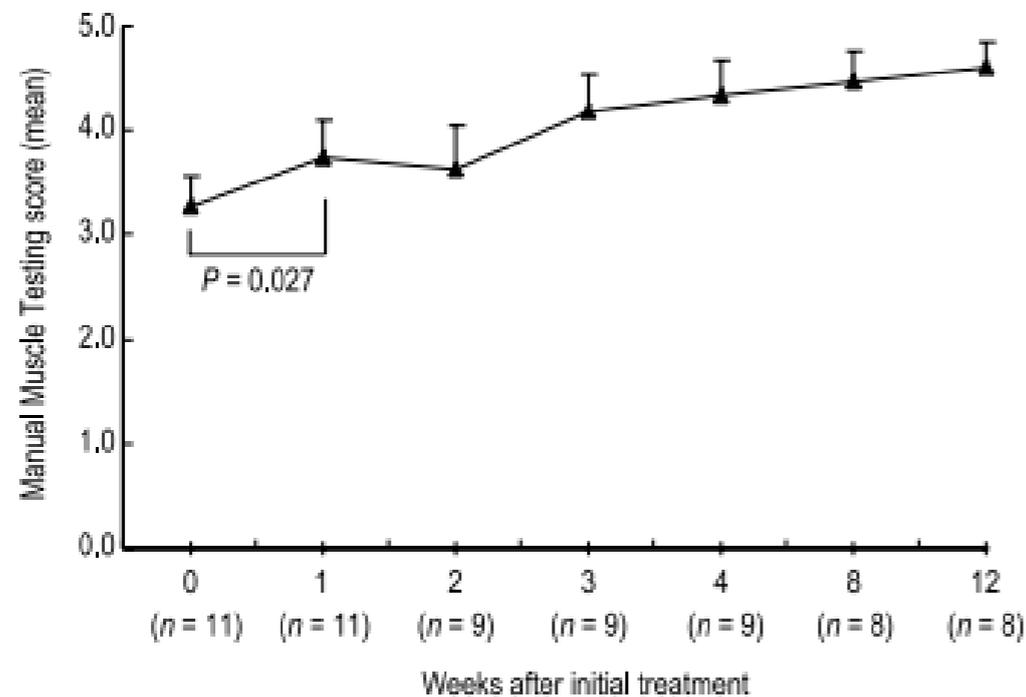
## Intravenously Administered Immunoglobulin in the Treatment of Childhood Guillain-Barré Syndrome: A Randomized Trial

Rudolf Korinthenberg, MD\*; Joachim Schessl, MD\*; Janbernd Kirschner, MD\*; and  
 Jürgen Scheidt, M.D., Ph.D.

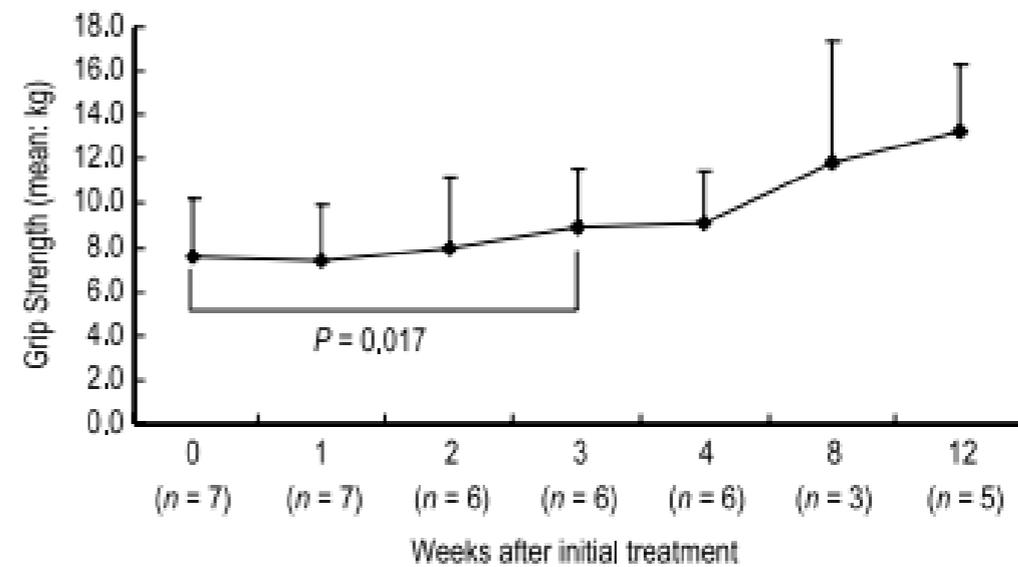
Original Article

## High-dose immunoglobulin therapy for Guillain–Barré syndrome in Japanese children

STUDY GROUP FOR PEDIATRIC GUILLAIN–BARRÉ SYNDROME  
 Participants in this study and their institutions are listed in Appendix 1



**Fig. 3** Graph showing changes in Manual Muscle Testing (MMT) score with time after intravenous immunoglobulin (IVIg) treatment.



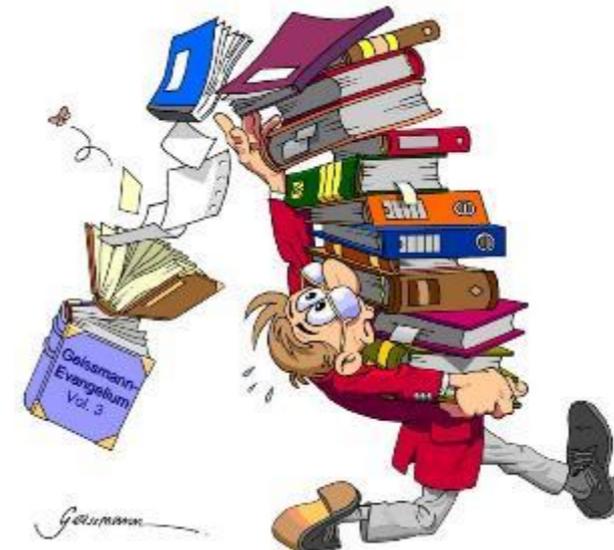
**Fig. 4** Graph showing changes in grip strength over time after intravenous immunoglobulin (IVIg) treatment.

Il 73% dei pazienti presentava un miglioramento di almeno un grado della scala di disabilità dopo una settimana dall'inizio del trattamento con IVIG. Dopo 4 settimane dal trattamento il miglioramento era presente nell'82% dei pazienti

# Take home messages

Sebbene la diagnosi di paralisi faciale periferica sia molto semplice, ricordarsi che di base c'è un insulto neurologico da non sottovalutare

Non sempre la Sindrome di Guillain Barrè, si manifesta con la sintomatologia classica, ma vi sono forme atipiche o parziali





**JOINT MEETING**  
In pediatria e medicina dell'adolescenza  
Sobre pediatría y medicina de la adolescencia

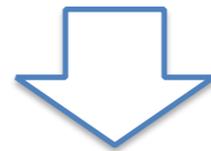
21-22-23-24 **2015** CATANZARO  
**OTTOBRE** **ITALIA**



# 3° caso *clinico*

Bimba di 5 anni, di madre ucraina e padre italiano, veniva condotta presso il nostro dipartimento per dolore addominale insorto da due giorni.

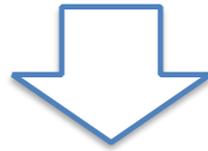
ANAMNESI FAMILIARE E PATOLOGICA REMOTA:  
negative.



carbone attivo



Dopo 24 h il quadro cambia...



- abbattimento
- Peggioramento del dolore addominale



- no f
- Obie
- dolen
- Scor
- PA =



disteso,





Il dolore addominale era emerso dopo l'assunzione di un pasto inusualmente abbondante

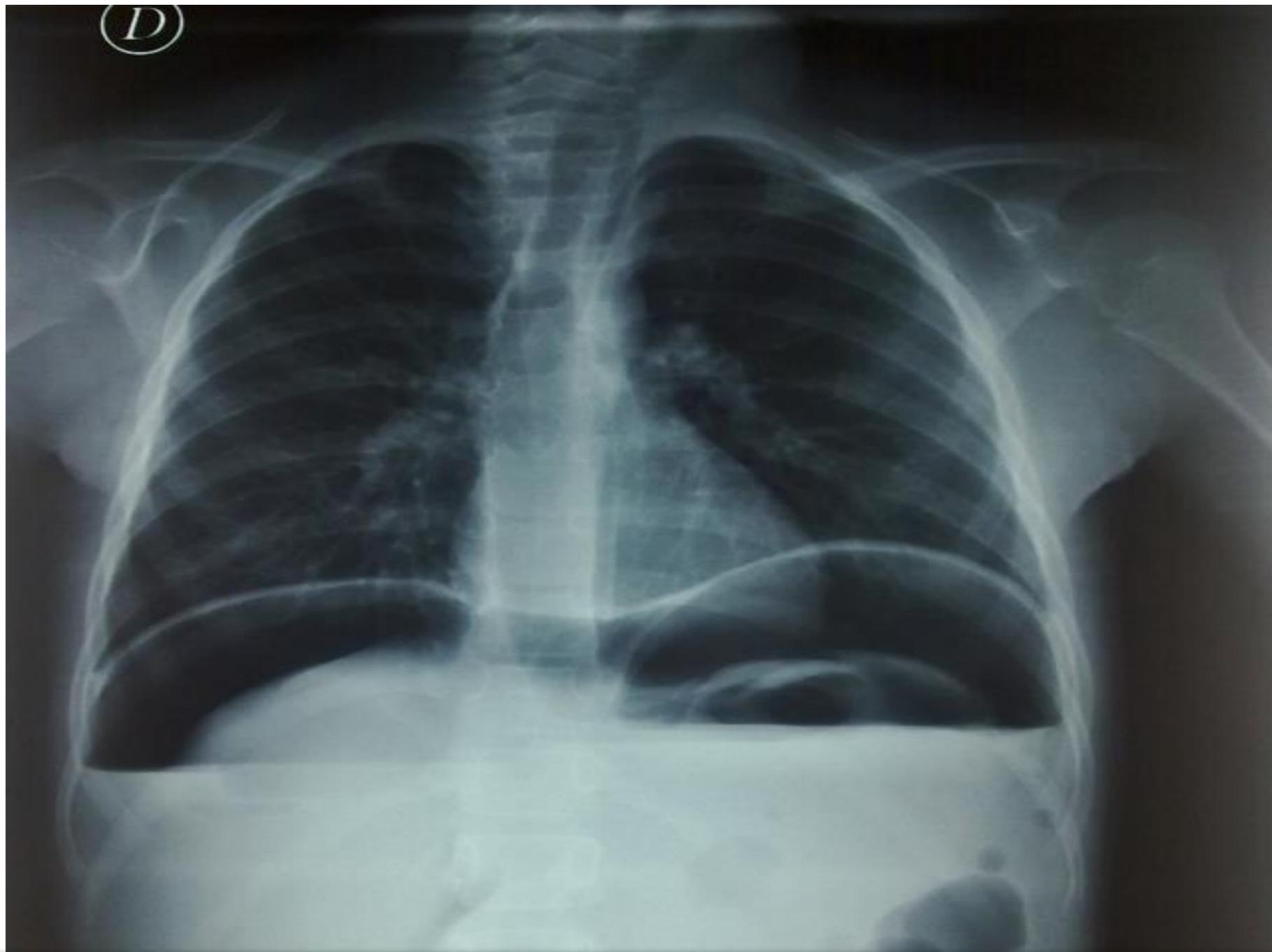
No storia di trauma nè di assunzione di sostanze caustiche

Alvo chiuso a feci e gas

## ESAMI DI LABORATORIO

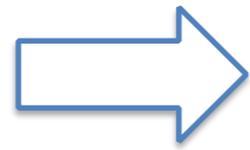
**Emocromo:** GR: 6.830.000/mmc, Hb: 12.8 g% ml, Hct: 37.6%,  
GB: 16.580/mmc N 45%, L 30%)

Sodio 129 mEq / L,  
Calcio 7.1 mg/dl,  
Potassio 3.6 mEq / L,  
proteine.: 4.2 mg / dl,  
albumina 2.3 mg / dl,  
PT 59.8 sec



TC addome: aria libera endoaddominale, falda fluida periepatica, perisplenica, nelle docce parieto-coliche e nello scavo pelvico

Posizionato SNG



Laparotomia urgente

Si procedeva a resezione della parete gastrica, asportando il tessuto devitalizzato lungo il piano

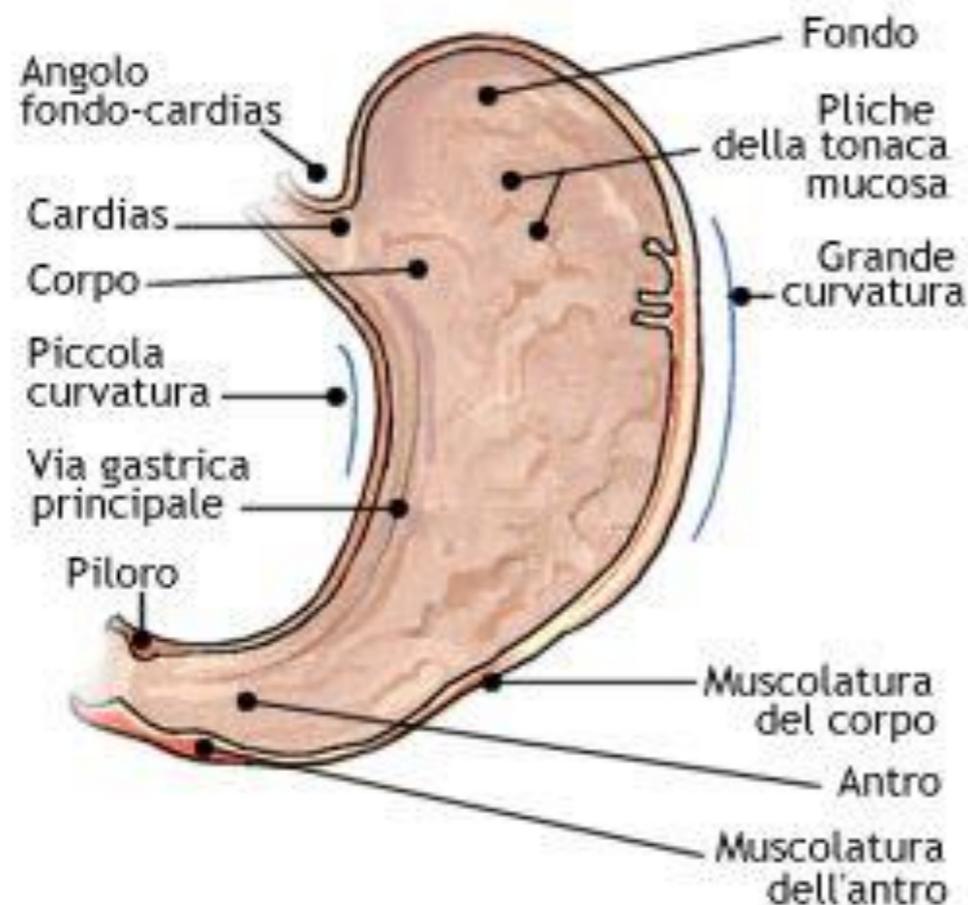
# Perforazione Gastrica spontanea

gastrica.

## Gastric rupture with necrosis following acute gastric dilatation: report of a case

Takehiro Mishima · Norihiro Kohara · Yoshitsugu Tajima · Junpei Maeda · Keiji Inoue ·  
Tsuyoshi Ohno · Amane Kitasato · Takehito Watanabe · Junji Irie · Tomohiko Adachi ·  
Tamotsu Kuroki · Susumu Eguchi · Takashi Kanematsu

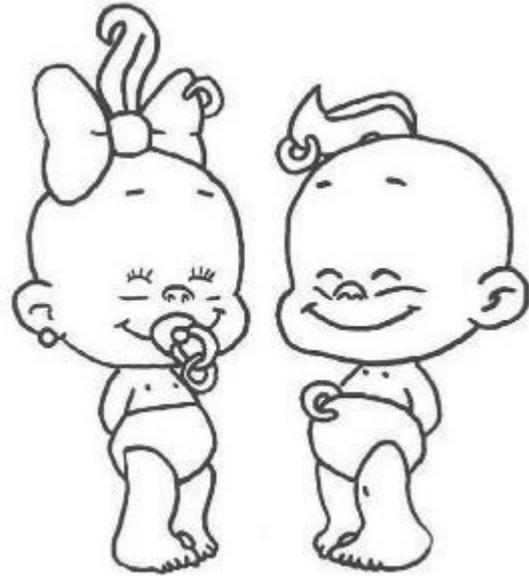
Spontaneous gastric rupture is a rare condition [7, 9, 10],  
first reported in 1842 [10].



molto mobile  
distensibile  
situato in profondità



# Eziopatogenesi



www.foto.kidnaka.com/paisi/

Indian J Surg (July–August 2014) 76(4):319–320  
DOI 10.1007/s12262-013-0980-7

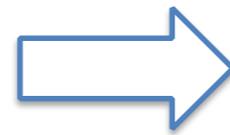
## CASE REPORT

### Neonatal Gastric Perforations: Are They Really Spontaneous?

Gaurav Gupta • Sachin Kumar • Sangeeta Gupta •  
K. B. Golhar • Swapnil Deshpande

Dickens et al. reported the incidence of neonatal gastric perforation as 34 per 1,000 live

NEONATI



Prematurità  
Asfissia  
Basso peso alla nascita  
Intolleranza alimentare  
Atresia esofagea  
Pancreas anulare  
Ostruzione intestinale  
Anomalie congenite

# Gastric Perforation Caused by a Bulimic Attack in an Anorexia Nervosa Patient: Report of a Case

at: <http://www.researchgate.net/publication/5773479>

ATSUNORI NAKAO, HIROSHI ISOZAKI, HIROMI IWAGAKI, TAIICHIRO KANAGAWA, NORIHISA TAKAKURA, and NORIAKI TANAKA

First Department of Surgery, Okayama Medical School, 2-7-10 Shikata-cho, Okayama, Okayama 700-8558, Japan

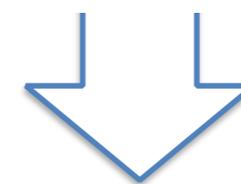
ARTICLE in ACTA CHIRURGICA BELGICA - OCTOBER 2007

A. Nakao et al.: Gastric Perforation in Anorexia Nervosa

437

**Table 1.** Reported cases of gastric perforation or necrosis due to bulimia in cases with anorexia nervosa

Patient no.	First author <sup>Ref.</sup>	Year	Age	Sex	Site of necrosis	Outcome
1	Evans <sup>2</sup>	1968	20	Female	Near-total	Recovery
2	Kerstein <sup>3</sup>	1974	18	Female	Near-total	Recovery
3	Saul <sup>1</sup>	1981	22	Female	Anterior wall	Fatal
4	Abdu <sup>4</sup>	1987	14	Female	Great curvature	Recovery
5	Abdu <sup>4</sup>	1987	17	Female	Near-total	Recovery
6	Deret <sup>5</sup>	1987	48	Male	Fundus	Recovery
7	Reeve <sup>6</sup>	1988	32	Male	Near-total	Recovery
8	Hirooka	1991	22	Female	Anterior wall	Recovery
9	Beiles <sup>7</sup>	1992	24	Female	Anterior wall	Recovery
10	Willeke <sup>8</sup>	1996	19	Female	Near-total	Recovery
11	Toyoshima <sup>9</sup>	1997	22	Female	Great curvature	Recovery
12	Nakao	Present case	17	Female	Anterior wall	Recovery



50% dei casi,  
dilatazione acuta gastrica

## Gastric rupture with necrosis following acute gastric dilatation: report of a case

Takehiro Mishima · Norihiro Kohara · Yoshitsugu Tajima · Junpei Maeda · Keiji Inoue ·  
Tsuyoshi Ohno · Amane Kitasato · Takehito Watanabe · Junji Irie · Tomohiko Adachi ·  
Tamotsu Kuroki · Susumu Eguchi · Takashi Kanematsu

L'eccesso di cibo induce flatulenza che riduce lo svuotamento gastrico.

La fermentazione del cibo, produce un eccesso di gas e quindi una distensione

La parete gastrica diventa grande e sottile con allungamento dei vasi sanguigni che si ostruiscono, con conseguente ischemia

Accorciamento angolo di His e sovracciacchiamento giunzione cardio-esofagea con valvola bidirezionale ed ulteriore intrappolamento di aria

Incremento della pressione intra-addominale dopo tosse o vomito precipitano rottura

## Spontaneous Rupture of the Stomach in Preschool Age Children: A Report of Two Cases

YASUO ADACHI,<sup>1</sup> HIDEO TAKAMATSU,<sup>1</sup> HIROYUKI NOGUCHI,<sup>1</sup> HIROYUKI TAHARA,<sup>1</sup> MOTOI MUKAI,<sup>1</sup>  
and HIROSHI AKIYAMA<sup>2</sup>

# QUANDO SOSPETTARLA?

1. Tympanitic abdominal distention.
2. Rigidity of the abdominal parietes.
3. Subcutaneous emphysema.
4. Evidence of shock.<sup>11</sup>



# Spontaneous gastric rupture in non-neonatal children: A case report

ARTICLE in ACTA CHIRURGICA BELGICA · OCTOBER 2007

Table 1

Cases of spontaneous idiopathic gastric rupture in pre-school children

Authors	Age	Sex	Site of rupture	Complications	Operation	Outcome
SHIOTA (6) (1981)	2 years	F	Lesser curvature, posterior	ND	Simple closure	Survived
SANADA (6) (1983)	2 years	F	ND	ND	ND	ND
YOKOYAMA (6) (1984)	1 year	M	Corpus	ND	Partial gastrectomy	Dead
YOKOYAMA (6) (1984)	2 years	F	Greater curvature, posterior	ND	Partial gastrectomy	Survived
SAKAI (6) (1987)	4 years	F	ND	ND	ND	ND
ASAKURA (6) (1987)	4 years	F	ND	ND	ND	ND
MITANI (6) (1990)	4 years	F	Greater curvature, posterior	ND	Partial gastrectomy	Survived
SATO (6) (1991)	3 years	F	Greater curvature, posterior	ND	Partial gastrectomy	Survived
FUKADA (6) (1993)	1 year	F	Greater curvature, posterior	ND	Simple closure	Survived
ADACHI (6) (1998)	2 years	F	Greater curvature, posterior	No	Simple closure	Survived
ADACHI (6) (1998)	4 years	F	Greater curvature, posterior	No	Simple closure	Survived
SHIMIZU (1) (2003)	3 months	F	Greater curvature 5 cm	Metabolic acidosis	Simple closure	Survived
SOONG (2) (1996)	5 years	F	Greater curvature 7.5 cm	No	Simple closure	Survived
QIN (7) (2000)	4 years	F	Greater curvature 7.5 cm	convulsions	Simple closure in two layers	Brain impairment
QIN (7) (2000)	12 years	F	No surgery	Died 2 hours after admission		Died
QIN (7) (2000)	7 months	F	Greater curvature 7.5 cm	Metabolic acidosis	Simple closure in two layers	Survived
LIBER (2007)	3 years	F	Greater curvature 7.5 cm	Metabolic acidosis, pulmonary infection	Sleeve gastrectomy	Survived

F, female ; M, male ; ND, not described.

## Spontaneous Rupture of the Stomach in Preschool Age Children: A Report of Two Cases

YASUO ADACHI,<sup>1</sup> HIDEO TAKAMATSU,<sup>1</sup> HIROYUKI NOGUCHI,<sup>1</sup> HIROYUKI TAHARA,<sup>1</sup> MOTOI MUKAI,<sup>1</sup>  
and HIROSHI AKIYAMA<sup>2</sup>

**Mortalità 30%**

**Table 1.** Cases of spontaneous gastric rupture in preschool children in Japan

Authors	Age (years)	Sex	Site of rupture	Operation	Outcome
Sigeta (1981)	2	F	corpus, posterior, lesser	simple closure	S
Sanada (1983)*	2	F	ND	ND	ND
Yokoyama (1984)*	1	M	corpus	partial gastrectomy	D
Yokoyama (1984)*	2	F	corpus, posterior, major	partial gastrectomy	S
Sakai (1987)*	4	F	ND	ND	ND
Asakura (1987)*	4	F	ND	ND	ND
Mitani (1990)	4	F	corpus, posterior, major	partial gastrectomy	S
Sato (1991)	3	F	corpus, posterior, major	partial gastrectomy	S
Fukada (1993)	1	F	corpus, posterior, major	simple closure	S
Adachi (1996)	2	F	fundus, posterior, major	simple closure	S
Adachi (1996)	4	F	corpus, posterior, major	simple closure	S

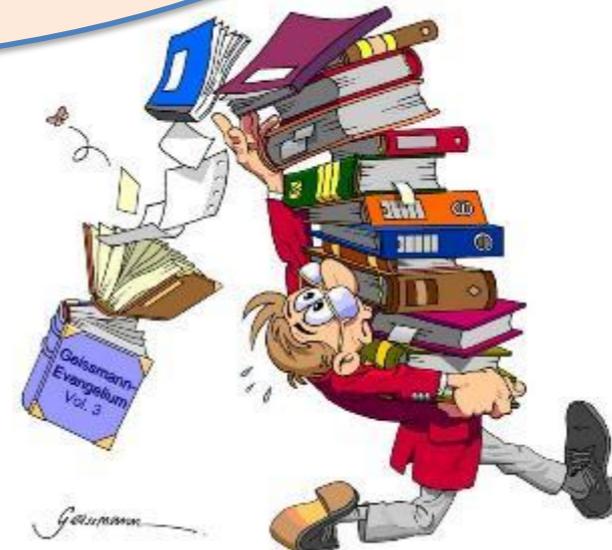
F, female; M, male; D, dead; S, survived; ND, not described

\* Cases referred to in ref. 14

# Take home messages

In presenza di importante distensione addominale dopo un pasto inusualmente abbondante, è importante sospettare una rottura gastrica

Una rapida valutazione diagnostica e pronto approccio chirurgico rende più favorevole outcome



7<sup>th</sup>

JOINT MEETING

In pediatria e medicina dell'adolescenza  
Sobre pediatría y medicina de la adolescencia

21-22-23-24 2015 CATANZARO  
OTTOBRE ITALIA

Non innamorarsi della prima diagnosi,

Grazie per  
l'attenzione