Infecciones por S. pyogenes

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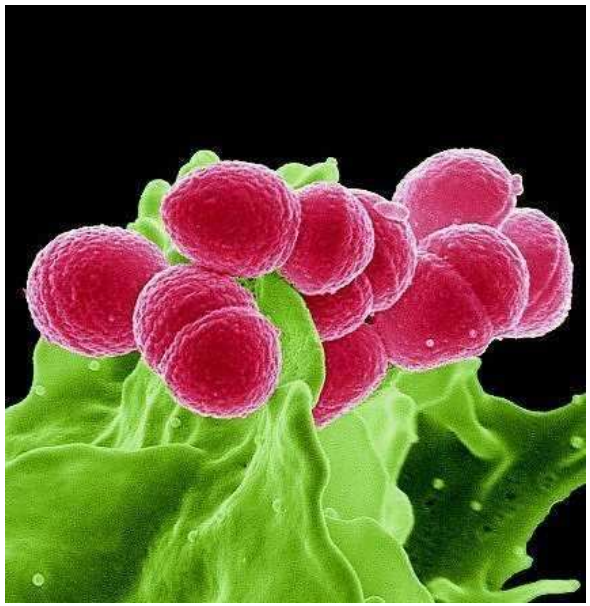
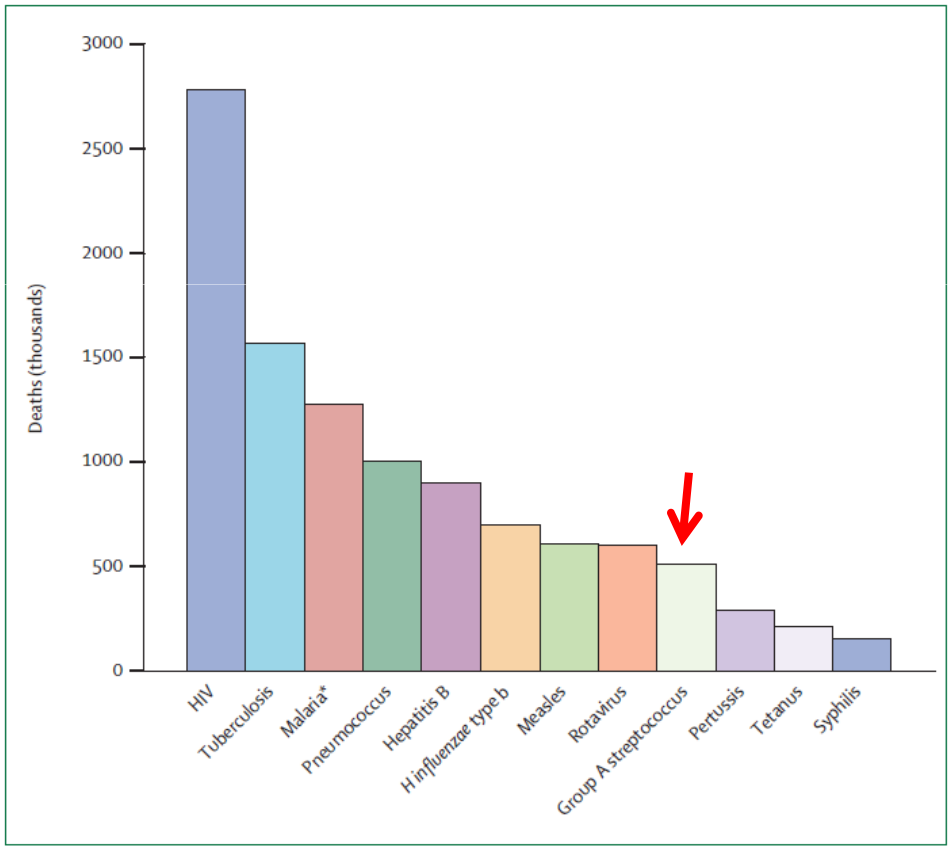


Carga global S. pyogenes



Carapetis JR et al. Lancet Infect Dis 2005;5: 685-694

Enfermedad invasiva

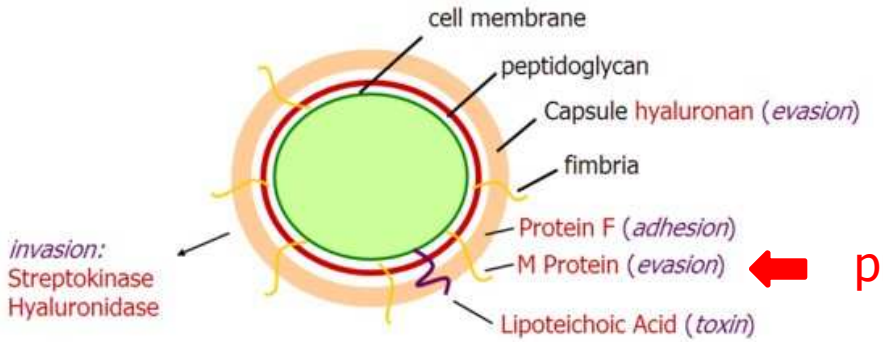
- Bacteriemia
- Neumonía, empiema o absceso pulmonar
- Meningitis o absceso cerebral
- Osteomielitis
- Artritis séptica
- Fascitis necrotizante
- Miositis
- Celulitis

Factores de riesgo

- Quemaduras
- Varicela
- Inmunosupresión
- Edad <2 años

Enfermedad invasiva

- 1940 ↓incidencia: introducción AB
- 1980 ↑incidencia: cepas hipervirulentas



principal factor de virulencia

Serotipos

Table 1. Examples of M types associated with specific clinical and epidemiological presentations

Clinical presentation	Associated M types
Pharyngitis	M1, M3, M5, M6, M12, M14, M17, M19, M24
Acute rheumatic fever (ARF)	M1, M3, M5, M6, M11, M12, M14, M17, M18, M19, M24, M27, M29, M30, M32, M41
Epidemic ARF	M5, M18
Geographically widespread epidemics	M1
Fatality	M1, M3, M12, M28
Necrotizing fasciitis	M1, M3, M28
Streptococcal toxic shock syndrome (STSS)	M1, M3
Impetigo	M33, M41, M42, M52, M53, M70
Puerperal sepsis	M28
Acute glomerulonephritis	M1, M4, M12, M49, M55, M57, M60
Meningitis	M1, M12

>100 serotipos

M1 y M3 relacionados con síndrome shock tóxico y fascitis necrotizante

Penicilina G sódica

- S. pyogenes 100% SE
- Bactericida
- Inhibe síntesis pared en bacterias con replicación activa
- Efecto "Eagle" (efecto inóculo)

250.000-400.000 UI/kg/día cada 4 horas IV (máx. 24.000.000U/día)

↓

Meningitis
Osteomielitis
Mastoiditis

} secuencial amoxicilina 80 mg/kg/día cada 8h (máx. 1g/8h)

otros amoxicilina 50 mg/kg/día cada 8h

Clindamicina

- Posibilidad S. pyogenes R en algunas regiones
- Bacteriostático
- Inhibe síntesis proteica
  - toxinas bacterianas (incluídos superAg)
  - síntesis proteína M S. pyogenes (facilitando fagocitosis)
- NO influye tamaño inóculo o estadío de crecimiento bacteriano
- Efecto postantibiótico más prolongado que beta-lactámicos
- Suprime TNF
- Mejor resultado que beta-lactámicos solos en SST

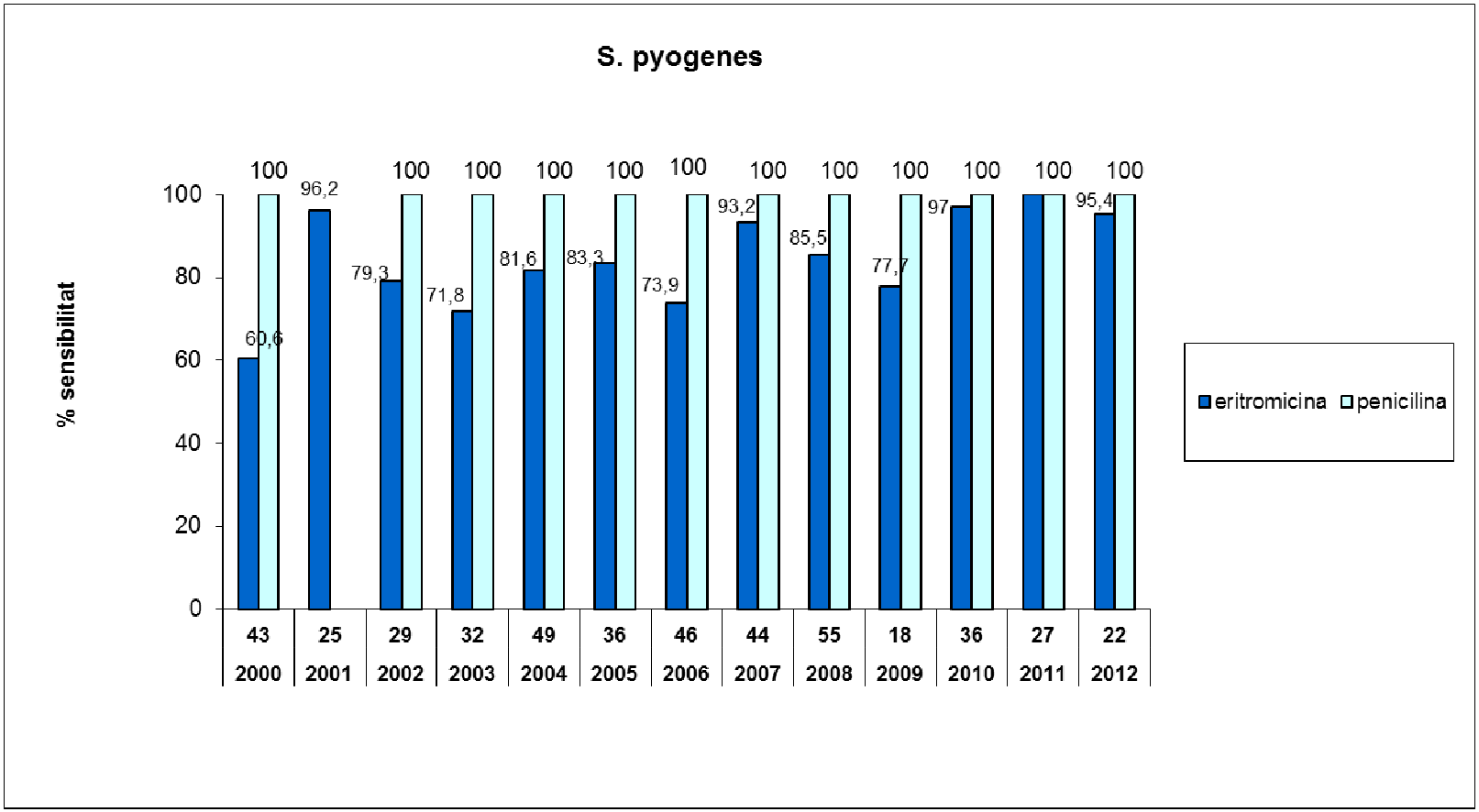
20-40 mg/kg/día cada 6-8 horas IV (max. 600 mg/dosis)

Clindamicina

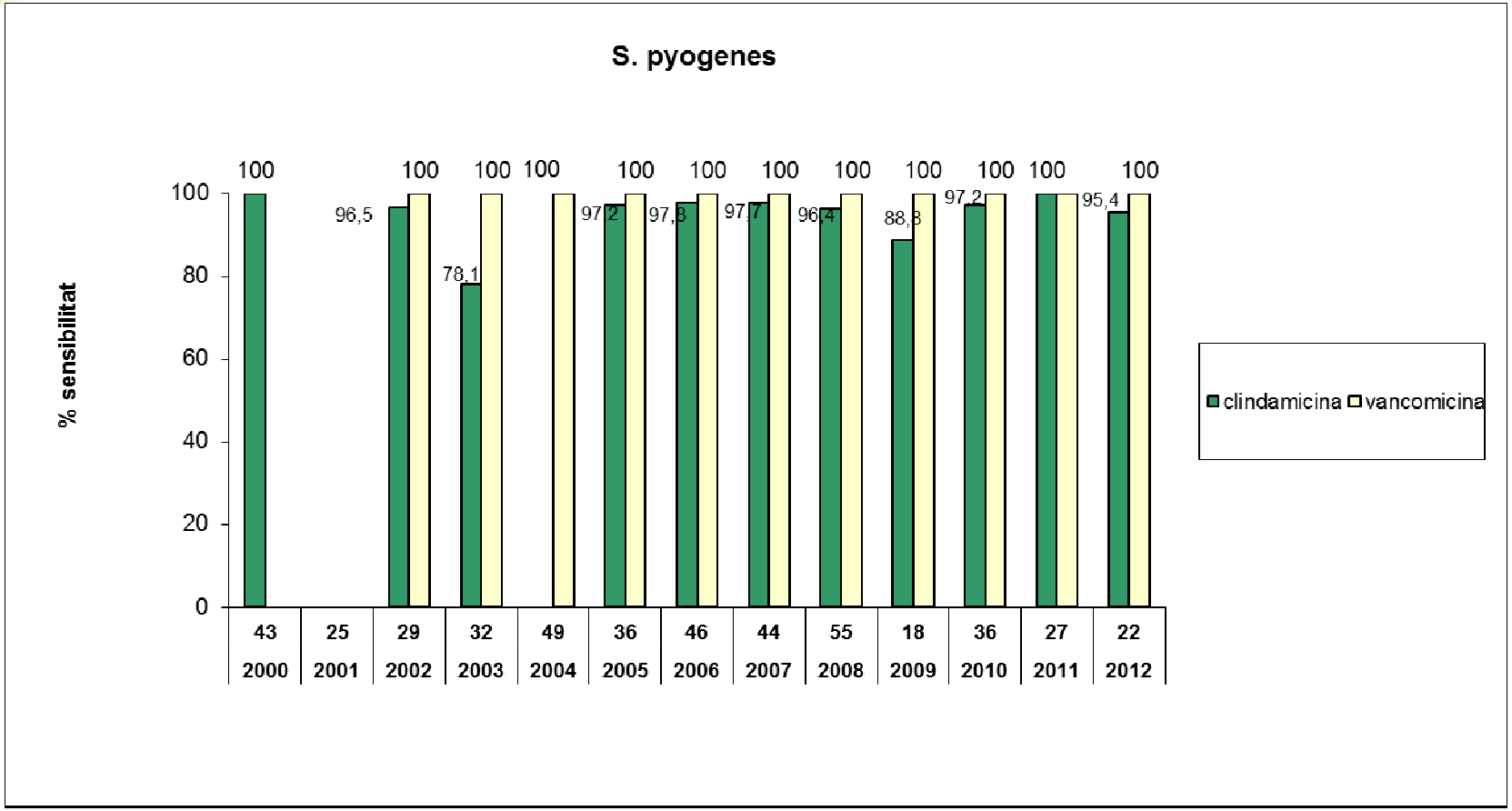
- Neumonía necrotizante
- Fascitis necrotizante
- SST
- Piomiositis

7-10 días

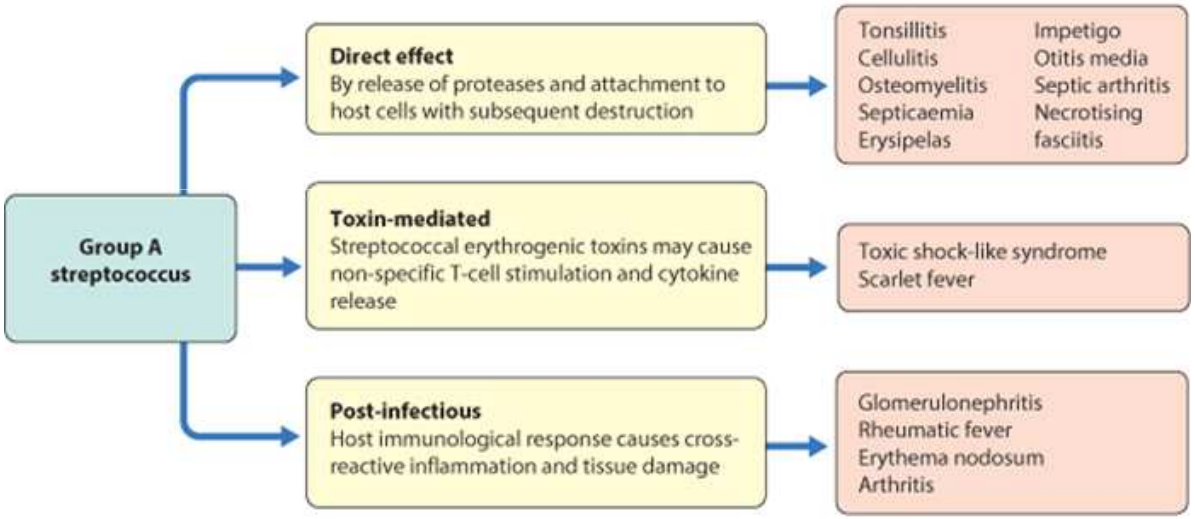
Sensibilidad AB



Sensibilidad AB



Infecciones por S. pyogenes

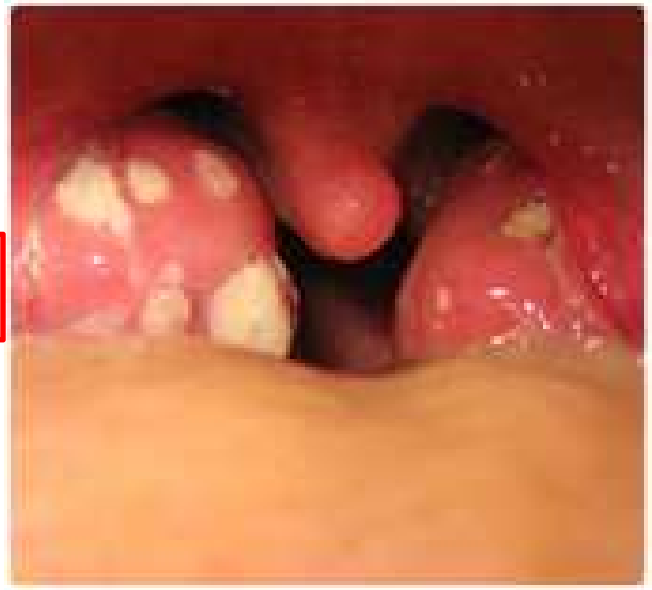


Faringoamigdalitis

Tabla 7 Tratamiento antibiótico de la FAA estreptocócica

- Primera elección. Cualquiera de las siguientes dos opciones:
  - Penicilina V (fenoximetilpenicilina potásica o benzatina) durante 10 días
    - Menores de 12 años y de 27 kg: 250 mg cada 12 h
    - Mayores de 12 años o de 27 kg: 500 mg cada 12 h
  - Amoxicilina durante 10 días
    - 40-50 mg/kg/día cada 12 o 24 h
    - Máximo 500 mg cada 12 h o 1 g cada 24 h
- En caso de mal cumplimiento vía oral o vómitos
  - Penicilina G benzatina, dosis única IM profunda
    - Menores de 12 años y de 27 kg: 600.000 U
    - Mayores de 12 años o de 27 kg: 1.200.000 U
- Alergia a penicilina (reacción retardada)
  - Cefadroxilo durante 10 días
    - 30 mg/kg/día cada 12 h. Máximo 1 g cada 24 h
- Alergia a penicilina (reacción inmediata o acelerada)
  - Azitromicina durante 3 días
    - 20 mg/kg/día cada 24 h. Máximo 500 mg/dosis
  - Si resistencia a macrólidos, de 14 y 15 átomos (eritromicina, claritromicina y azitromicina)
    - Clindamicina: 20-30 mg/kg/día cada 8-12 horas, 10 días (máximo 900 mg/día)
    - Josamicina: 30-50 mg/kg/día, cada 12 h, 10 días (máximo 1 g/día)
    - Diacetato de midecamicina: 40 mg/kg/día, cada 12 h, 10 días (máximo 1,5 g/día)

FAA: faringoamigdalitis aguda.



Niños edad escolar (>3 años)
Invierno-primavera
Incubación 3-7 días

Piñeiro Perez R et al. An Pediatr 2011;75: 342e1-13.

Estado portador faríngeo

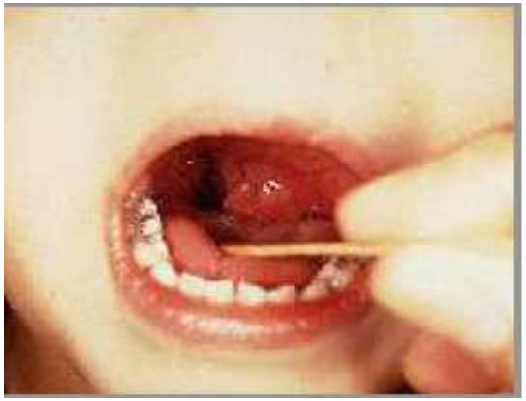
- 20% edad escolar (12% cualquier edad)
- NO precisa tratamiento

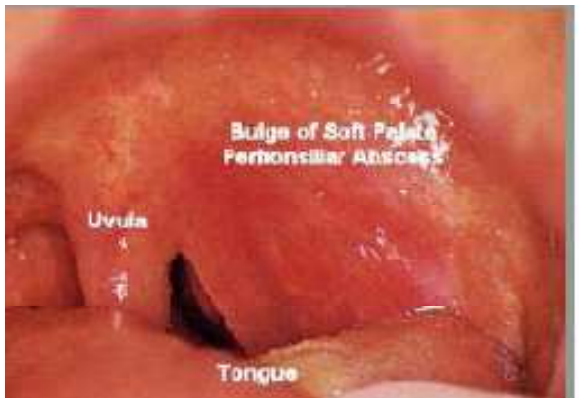
a) Antecedente de fiebre reumática en el niño o convivientes
b) Brotes intrafamiliares recurrentes de FAA por EbhGA
c) Enfermedad invasiva por EbhGA en el niño o convivientes
d) Portadores que viven en instituciones cerradas o con enfermos crónicos
e) Cuando se contempla realizar una amigdalectomía como último recurso de tratamiento

- Opciones terapéuticas:
  - Clindamicina durante 10 días.
    - 20-30 mg/kg/día cada 8-12 h. Máximo 900 mg/día
  - Azitromicina durante 3 días
    - 20 mg/kg/día cada 24 h. Máximo 500 mg/dosis
  - Amoxicilina-clavulánico durante 10 días
    - 40 mg/kg/día cada 8 h. Máximo 1 g cada 24 h
  - Penicilina G benzatina, inyección única intramuscular profunda. Misma dosis que la indicada en la tabla 4
    - Más rifampicina 20 mg/kg/día cada 12 h. Máximo 600 mg/día, los últimos 4 días
  - Penicilina V (fenoximetilpenicilina) durante 10 días. Misma dosis que la indicada en al tabla 4
    - Más rifampicina 20 mg/kg/día cada 12 h. Máximo 600 mg/día, los últimos 4 días
  - Cefadroxilo durante 10 días. 30 mg/kg/día cada 12 h. Máximo 1 g cada 24 h
    - Más rifampicina 20 mg/kg/día cada 12 h. Máximo 600 mg/día, los últimos 4 días

Absceso periamigdalino

- niños mayores, adolescentes
- fiebre, odinofagia severa, babeo, disfagia, tortícolis, rigidez nucal, voz gangosa, adenopatías



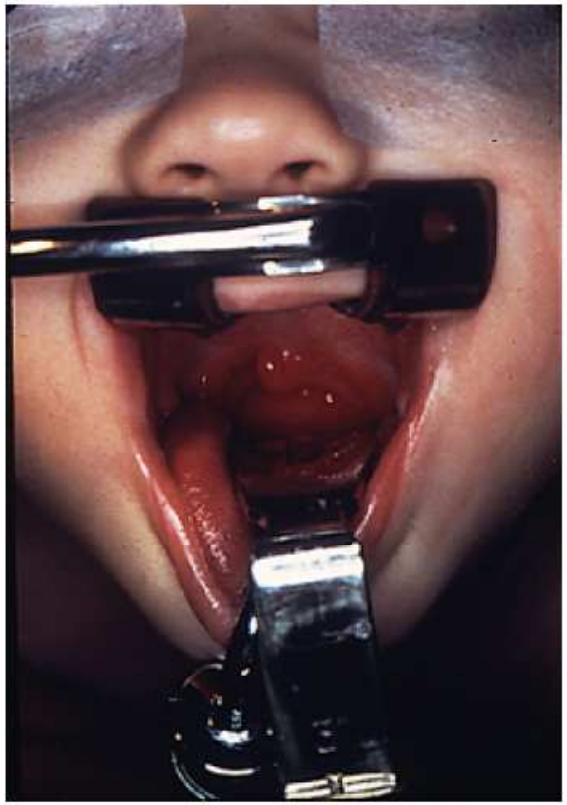


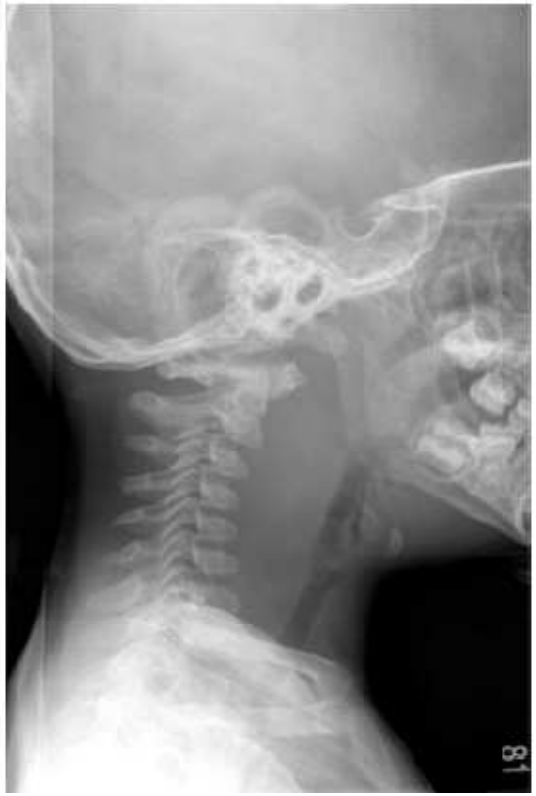
Amoxicilina-clavulánico 14 días, drenaje Ci

100 mg/kg/dia cada 6 h ev → 50 mg/kg/dia cada 8h vo

Absceso retrofaríngeo

- <6a
- S. aureus
  S. pyogenes
  Haemophilus
  Anaerobios

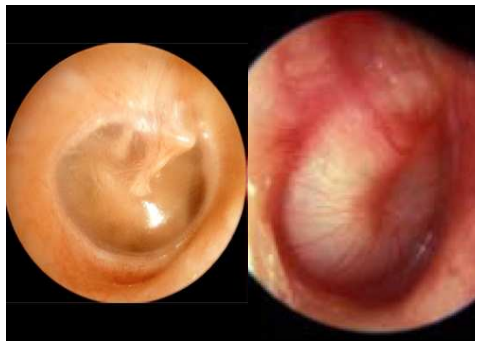




Amoxicilina-clavulánico 14 días, drenaje Ci

MAJOR ARTICLE

Acute Otitis Media Caused by *Streptococcus pyogenes* in Children



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[1]Department of Otorhinolaryngology, [2]Pediatric Infectious Disease Unit, and [3]Clinical Microbiology Laboratory, Soroka University Medical Center and the Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel

(See the editorial commentary by Shulman and Tanz on pages 42–4)

Background. *Streptococcus pyogenes,* or group A β-hemolytic *Streptococcus* (GAS), is an important causative agent of bacterial pharyngotonsillititis and skin, soft-tissue, and invasive infections. Although it is also an important pathogen in acute otitis media (AOM), its exact role has not been determined.

Methods. Patients aged 0–18 years with AOM, from whom a specimen of middle-ear fluid was obtained and cultured during 1999–2003, were enrolled. *Streptococcus pneumoniae, Haemophilus influenzae, Moraxella catarrhalis,* and GAS were considered pathogens. Information collected included demographic characteristics, clinical history, and signs and symptoms.

Results. GAS otitis was observed in 350 (3.1%) of 11,311 episodes (of which 117 were also culture-positive for other pathogens). The other 10,961 episodes involved *H. influenzae* only ($n = 2507$), *S. pneumoniae* only ($n = 2131$), dual infection with *H. influenzae* and *S. pneumoniae* ($n = 1290$), *M. catarrhalis* only ($n = 129$), and other combinations of pathogens ($n = 271$). Increased age and Jewish ethnicity were independent, significant, positive risk factors for GAS AOM, and fall season was a negative risk factor. Episodes of GAS infection were less frequently bilateral, febrile, and accompanied by other systemic findings than were other episodes of other types of infection. Most patients with GAS AOM presented with acute drainage from the ears. A lower proportion of cases of AOM were due to GAS in children with recurrent AOM and in patients recently treated with antibiotics, compared with patients with AOM who did not have these factors. The risk for mastoiditis was highest among patients with GAS AOM, compared with patients infected with other pathogens: 11.6 episodes per 1000 episodes of GAS AOM, compared with 2.2, 0.3, and 0 episodes of mastoiditis per 1000 episodes of AOM due to *S. pneumoniae, H. influenzae,* and *M. catarrhalis,* respectively.

Conclusion. Compared with AOM caused by pathogens other than GAS, GAS AOM is characterized by older age and higher local aggressiveness manifested by lower rates of fever and respiratory symptoms and higher rates of tympanic perforation and mastoiditis.

CID 2005;41: 35-41

OMA y mastoiditis

- Etiología:

  - S. pneumoniae 19-74%, Hi 16-61%
  - Moraxella 3-20%, S. pyogenes <10%, virus 5-22%

- OMA: 10 días

  - amoxicilina 50 mg/kg/día cada 8h

- Mastoiditis: 2-4 semanas

  - penicilina G sódica 400.000 UI/kg/día cada 4h

    → amoxicilina 80 mg/kg/día cada 8h

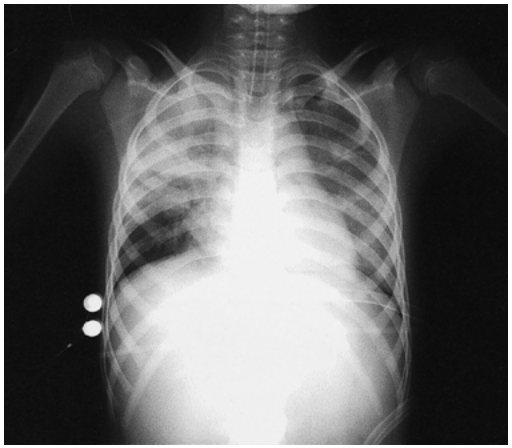
Neumonía

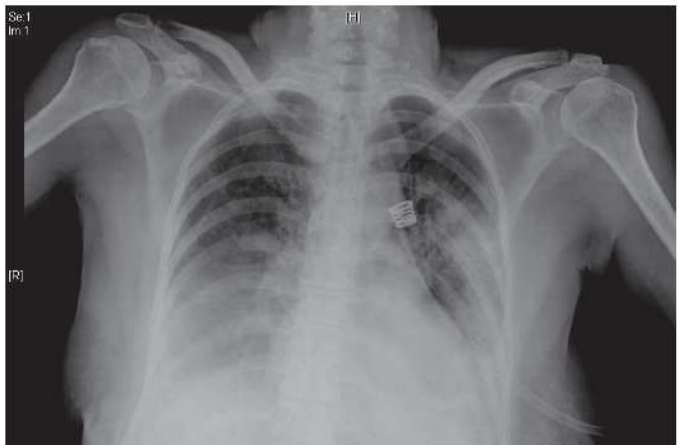
- Neumonía necrotizante: 4 semanas

  - penicilina G sódica 250.000 UI/kg/día cada 4h
    + clindamicina 40 mg/kg/día cada 8h (7-10 días)

- Empiema pleural: 2-4 semanas

  - penicilina G sódica 250.000 UI/kg/día cada 4h





Meningitis

- penicil.lina G sódica 400.000 UI/kg/día cada 4h 10d

Table 2 Relative importance and mortality of invasive group A *Streptococcus* infections in children

Reference	Years of study	Number of cases (age of children)	Cutaneous/ soft tissue/ abdominal/ lymph node infection	Bacteremia without a source	Pulmonary infection	Septic arthritis/ osteomyelitis	NF	STSS	Endocarditis pericarditis	Meningitis/ CNS infection	Epiglottitis/ otitis media/upper respiratory tract infection	Other[a]	Death (%)
Laupland et al. [36]	1992–1996	211	44%	16%	6%	19%	4%	7%	0.8%	2%	18%	0.4%	4.1
Mulla et al. [49]	1996–2000	25 (0.05–17 years)	32%	16%	20%	16%	16%	4%	–	8%	16%	–	4.4
Lee et al. [38]	1996–2005	29	–	37.9%	24.1%	6.8%	–	–	–	3.4%	–	–	NS
Caetano et al. [6]	1996–2009	24	29.1%	25%	4.2%	20.8%	4.2%	8.3%	–	–	–	2.3%	8.3
Minodier et al. [47]	1999–2007	68	27.9%	5.9%	19.1%	17.6%	26.5%	–	–	5.9%	–	–	4.4
O'Loughlin et al. [55]	2000–2004	572 (<10 years)	34.8%	35.7%	16.3%	14.8%	0.9%	4.6%	0.2%	0.03%	3.9%	1.4%	4.9
Henriet et al. [22]	2000–2007	28	25%	–	11%	53%	–	11%	–	–	–	–	3.6
O'Grady et al. [54]	2001–2004	58 (<15 years)	60%	13%	60%	31%	–	–	–	–	10%	–	NS
Steer et al. [70]	2005–2007	12 (<14 years)	16.6%	41.6%	16.6%	25%	–	–	–	–	–	–	8.3
Our study	2007–2010	38	53%	–	10%	29%	7.8%	7.8%	–	–	–	–	0
Whitehead et al. [81]	2008	99	11%	66.6%	4%	16.1%	1%	6%	–	1%	1%	–	4

More than one diagnosis may be specified per patient

NF necrotizing fasciitis, *STSS* streptococcal toxic shock syndrome, *CNS* central nervous system, *NS* not specified

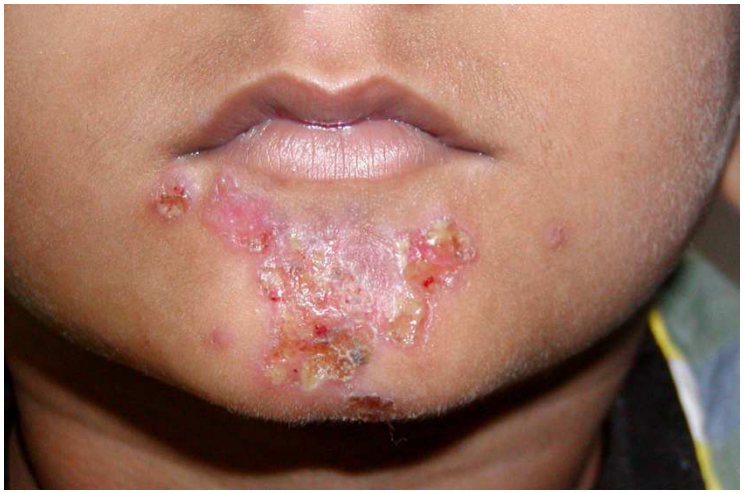
[a] Septic vein thrombosis, mastoiditis, hemolytic uremic syndrome, and unknown syndromes

Eur J Pediatr 2012; 171: 1589-1598

Impétigo

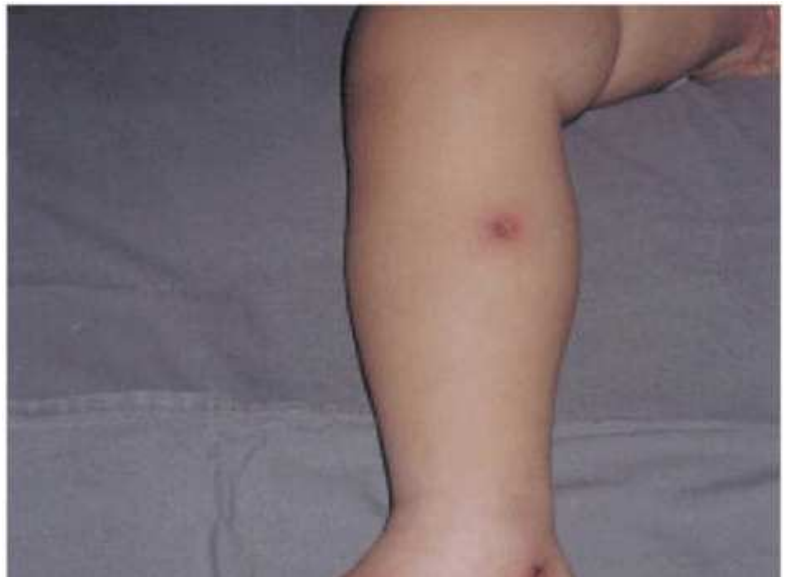
- S. aureus, S. pyogenes
- AB

  - Localizado: mupirocina tópica 1 apl/8h 10d
  - Extenso: cefadroxilo vo 30 mg/kg/d c12h 10d

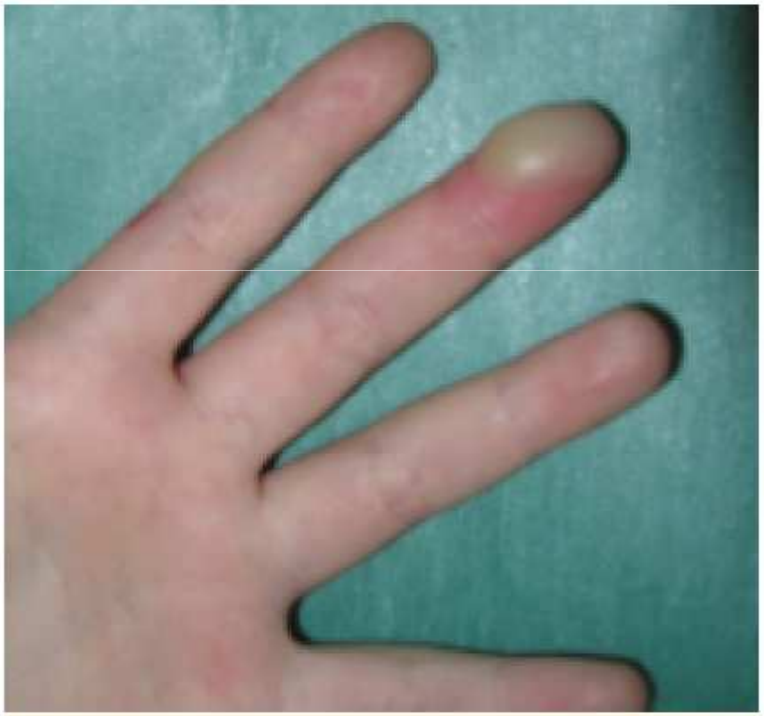


Ectima

- forma profunda y ulcerada impétigo
- vesículo-pústula → costra negruzca → úlcera
- AB: amoxicilina 50 mg/kg/día cada 8h 10 días
- Antiséptico local

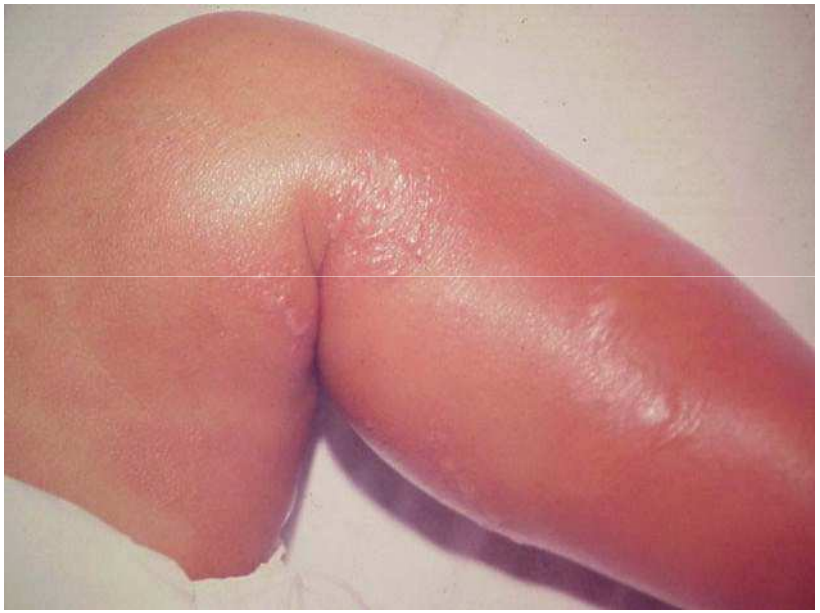


Dactilitis ampollosa



- amoxicilina 50 mg/kg/día 8h 10 días
- mupirocina tópica

Erisipela



- S. pyogenes
- Cualquier edad
- Puerta entrada herida
- AB: 10 días

penicilina G sódica
250.000 UI/kg/día cada 4h
→ amoxicilina
50 mg/kg/día cada 8h

Erisipela

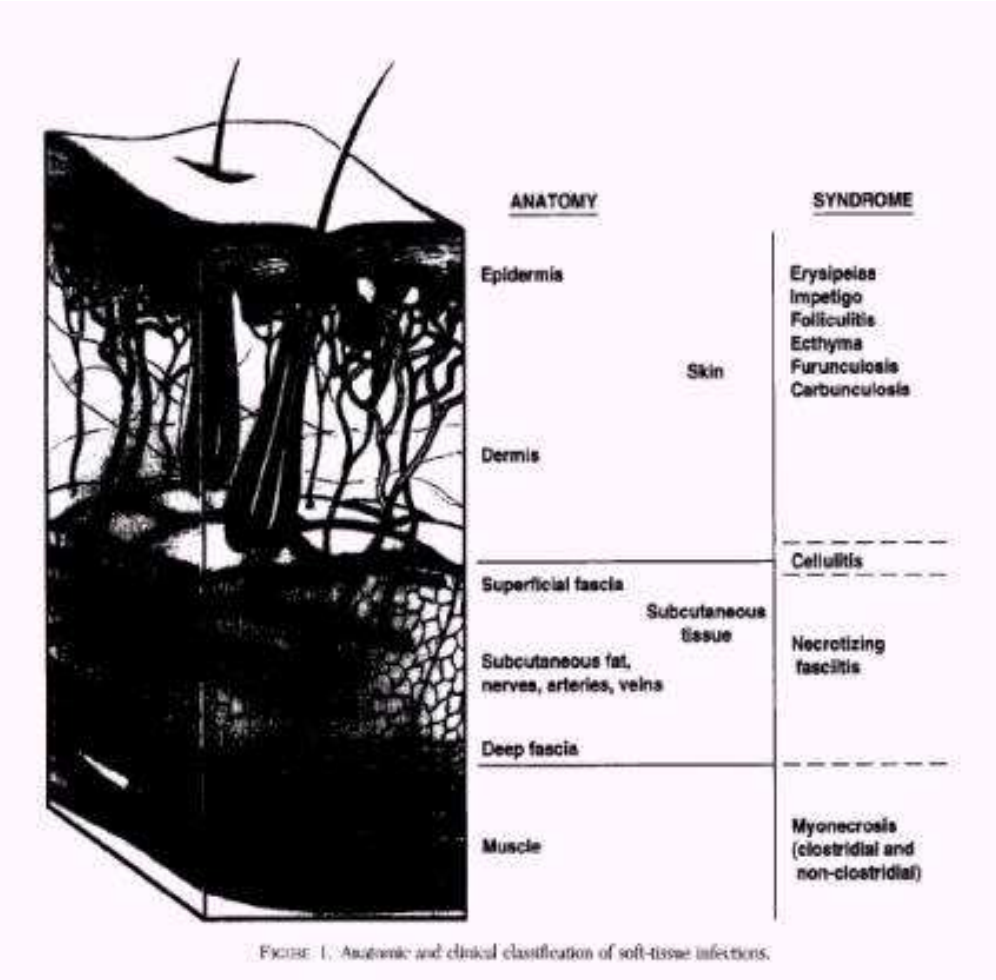
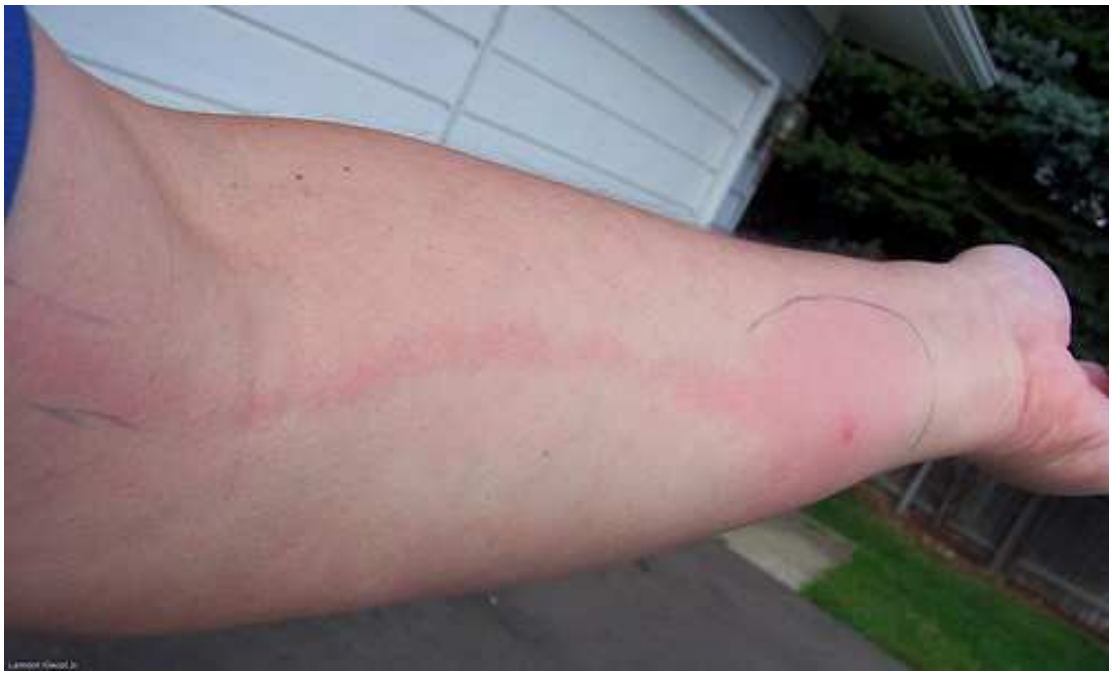


FIGURE 1. Anatomic and clinical classification of soft-tissue infections.

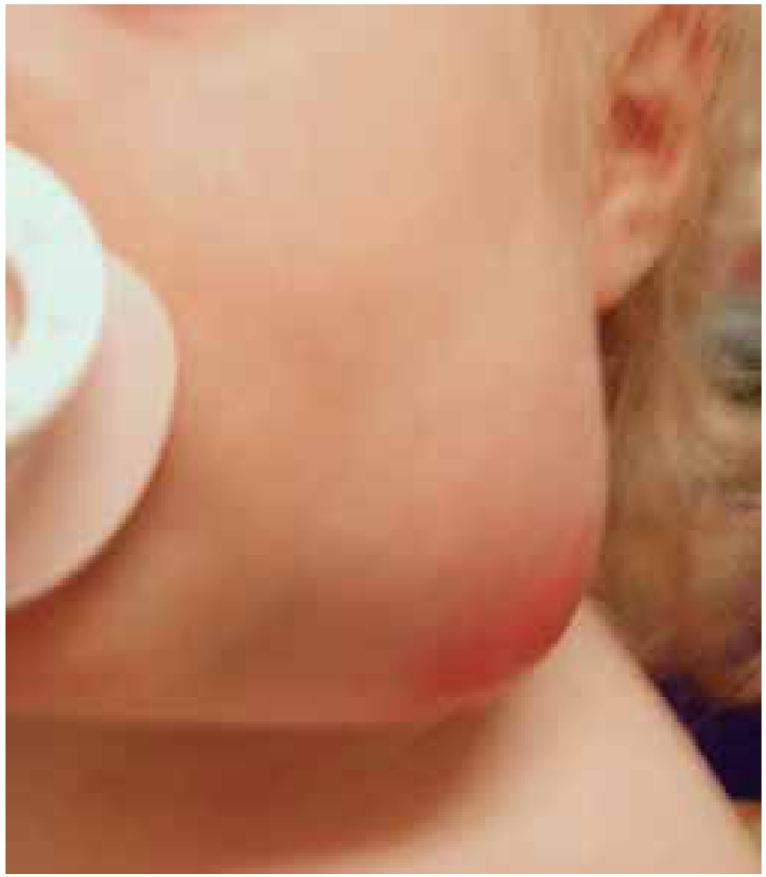
Dermis superficial

Linfangitis

- AB: 10 días
  - penicilina G sódica 250.000 UI/kg/día cada 4h
    → amoxicilina 50 mg/kg/día cada 8h



Adenitis



- < 5 años
- S. aureus

  S. pyogenes
- AB: 10 días

  amoxicilina-clavulánico

  50 mg/kg/día cada 8h

Celulitis periorbitaria

- Picadura

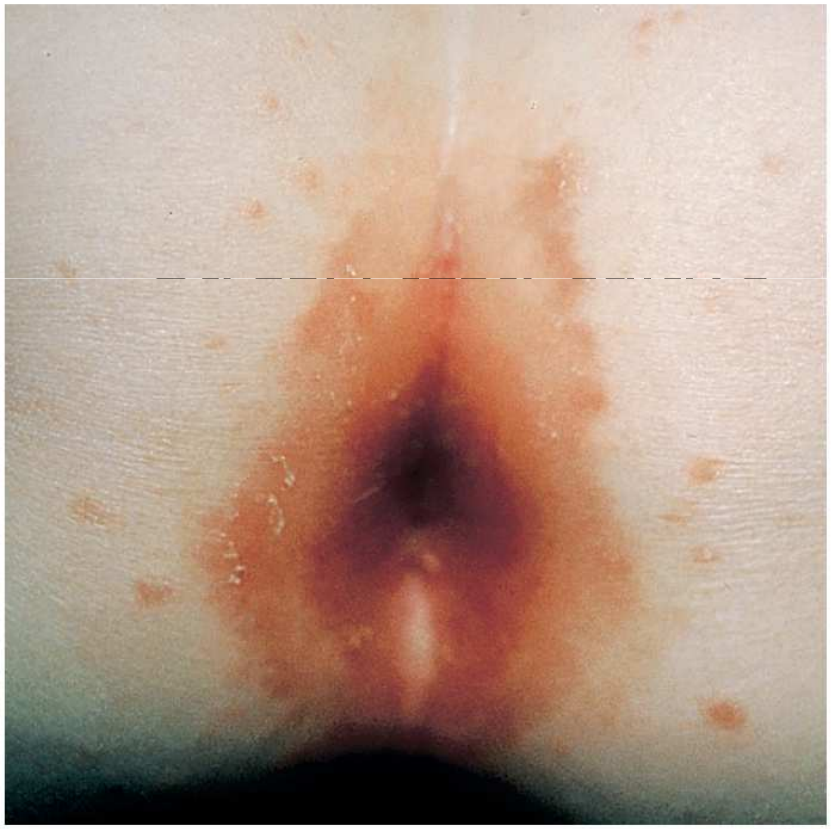
  Traumatismo
- S. aureus

  S. pyogenes
- AB: 10 días

  amoxicilina-clavulánico

100 mg/kg/día cada 6 h ev →
50 mg/kg/día cada 8h vo

Infección estreptocócica perianal



- S. pyogenes
- < 5 años
- StrepA test, cultivo
- AB: 10 días

  amoxicilina

  50 mg/kg/d c8h

Celulitis

- S. aureus, S. pyogenes
- AB: 10 días

  penicilina G sódica

  250.000 UI/kg/día cada 4h

  → amoxicilina

  50 mg/kg/día cada 8h

Celulitis

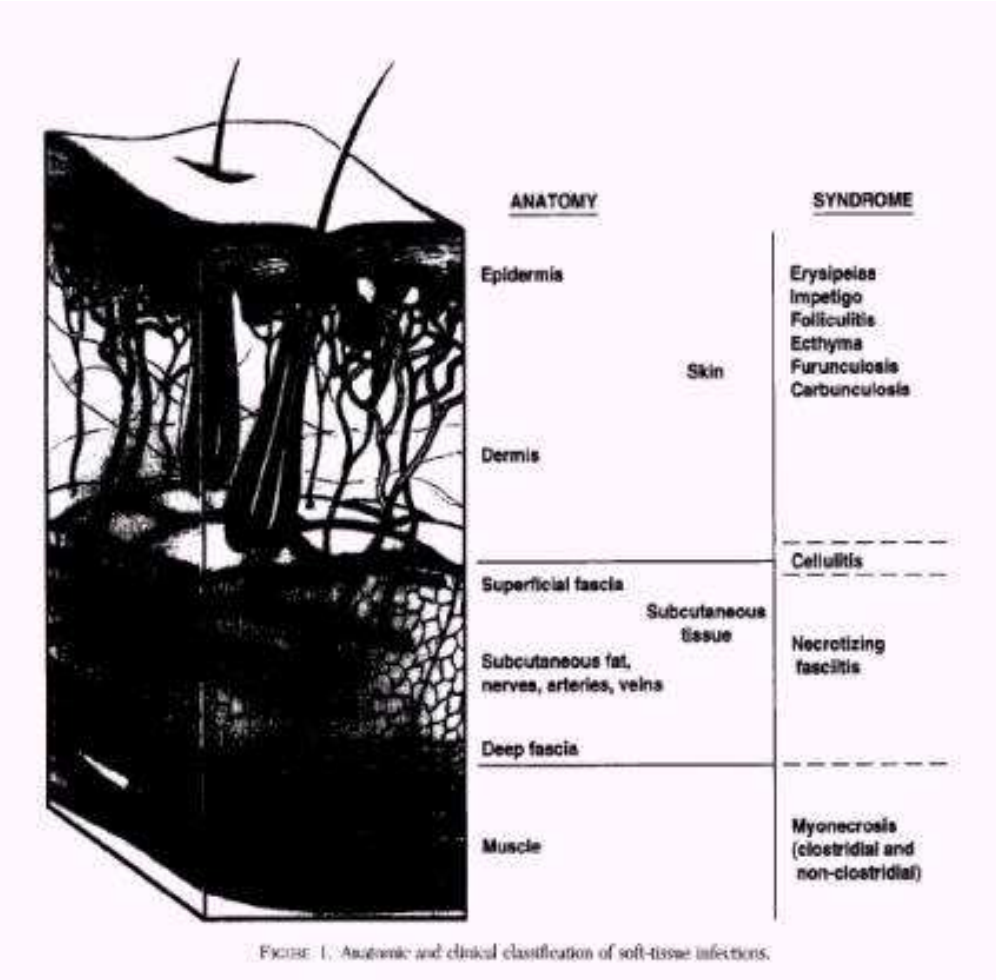
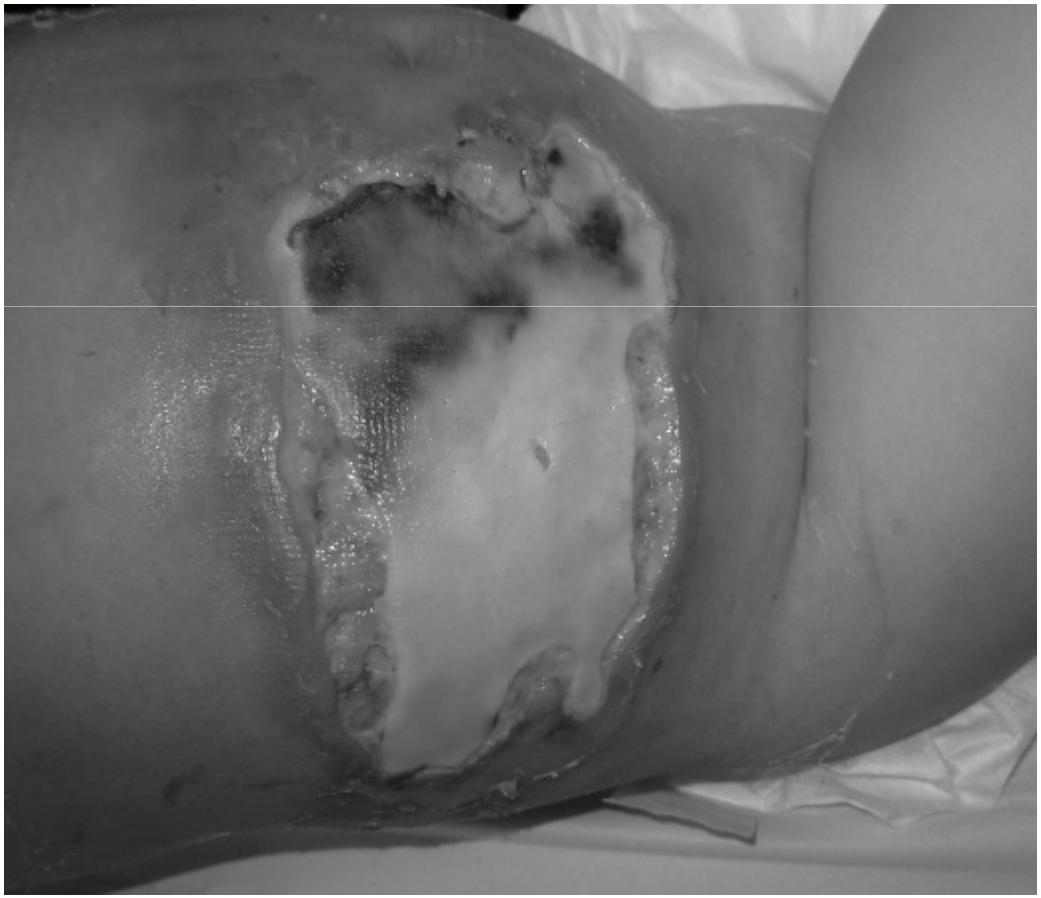


FIGURE 1. Anatomic and clinical classification of soft-tissue infections.

Dermis
Tejido celular subcutáneo

Fascitis necrotizante



Niña 2 años, varicela

Fascitis necrotizante

TABLE 1. Univariate Analysis of Clinical, Biologic, and Microbiologic Factors Associated With Necrotizing Fasciitis Among Pediatric Invasive Group A Streptococcal Infections (1999–2007)

	NF (n = 18)	Non-NF (n = 50)	*P*	OR (95% CI)
Gender female	9 (50%)	21 (42%)	0.56	0.72 (0.25–2.13)
Mean age ± SD (mo)	59.7 (±56.5)	56.7 (±49.0)	0.35	0.99 (0.98–1.01)
Recent varicella	10 (55.6%)	7 (14.3%)	0.001	7.5 (2.2–25.6)
Mean temperature ± SD (°C)	39.1 (0.85)	39.4 (±1.02)	0.29	1.4 (0.8–2.5)
Mean delay symptoms ± SD (d)	2.4 (±1.5)	3.7 (±2.9)	0.08	1.4 (0.9–2.03)
Toxic shock syndrome	6 (33.3%)	2 (4%)	0.005	12.0 (2.1–67.1)
White blood cells (109/L)	14.8 (±5.1)	15.9 (±7.2)	0.53	1.0 (1.0–1.0)
Polynuclear cells (109/L)	12.1 (±4.9)	11.9 (±6.7)	0.95	1.0 (1.0–1.0)
Lymphocytes (109/L)	1.5 (±1.1)	2.5 (±2.1)	0.85	1.0 (1.0–1.0)
Platelets (109/L)	205 (±82)	314 (±142)	0.007	1.0 (1.0–1.0)
C-Reactive protein (mg/L)	204.6 (±98.2)	142 (±75.5)	0.06	0.99 (0.8–1.0)
GAS-Positive blood culture	3 (16.7%)	35 (70%)	<0.001	0.08 (0.2–0.3)
emm 1 type	3 (16.7%)	17 (35.4%)	0.15	0.4 (0.1–1.4)
Virulence genes				
speA	4 (22.2%)	20 (40%)	0.18	0.4 (0.1–1.5)
speC	12 (66.7%)	15 (30%)	0.01	4.7 (1.5–14.7)
ssa	4 (22.2%)	10 (20%)	0.8	1.1 (0.3–4.2)
smeZ-1	5 (27.8%)	23 (46%)	0.2	0.4 (0.1–1.5)
sic	3 (16.7%)	15 (30%)	0.3	0.5 (0.1–1.8)

NF indicates necrotizing fasciitis; OR, odds ratio; CI, confidence interval; SD, standard deviation; C, celsius; GAS, group A *Streptococcus*.

Fascitis necrotizante

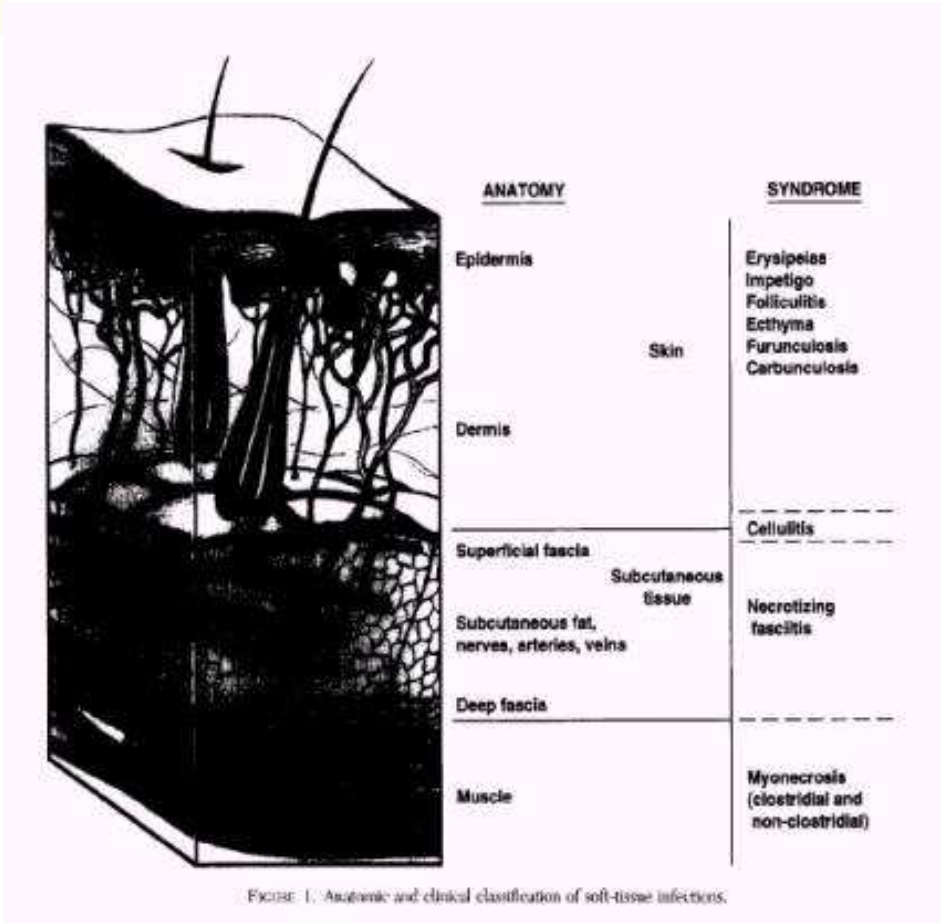


FIGURE 1. Anatomic and clinical classification of soft-tissue infections.

Necrosis fascia muscular

Fascitis necrotizante

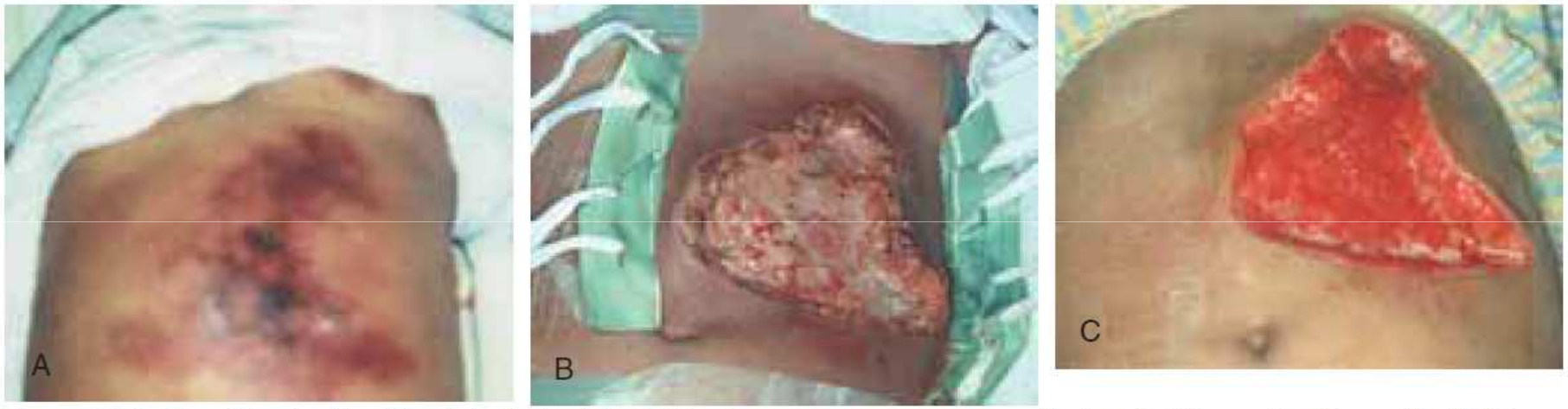


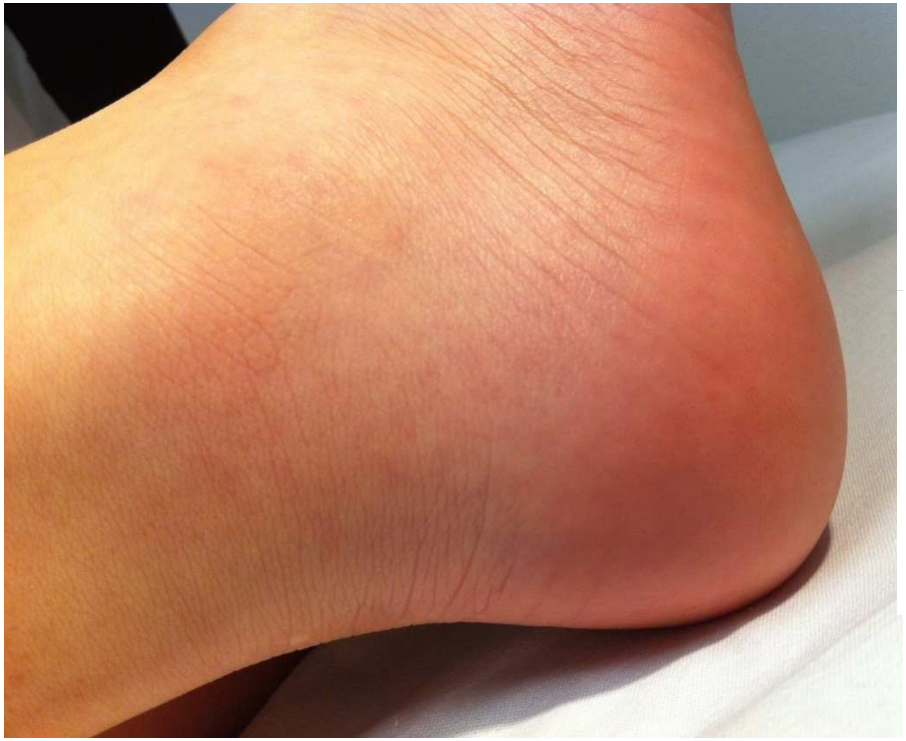
Figure 79-4. Necrotizing fasciitis of the abdominal wall due to *Streptococcus pyogenes* as a complication of chickenpox in a 7-year-old girl. Note duskiness, ecchymosis, purpura, and edema of the abdominal wall (A). There was full-thickness necrosis of skin, subcutaneous tissue, and fascia (B). After multiple surgical debridements, the patient is ready for grafting (C). (Courtesy of J.H. Brien.)

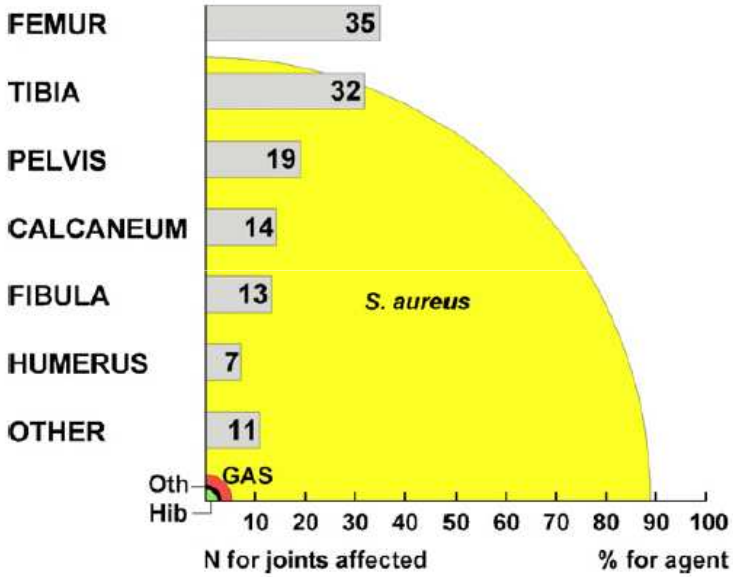
AB: 14 días

penicilina G sódica 250.000 UI/kg/día cada 4h

+ clindamicina 40 mg/kg/día cada 8h (7-10 días)

Osteomielitis





Osteomielitis

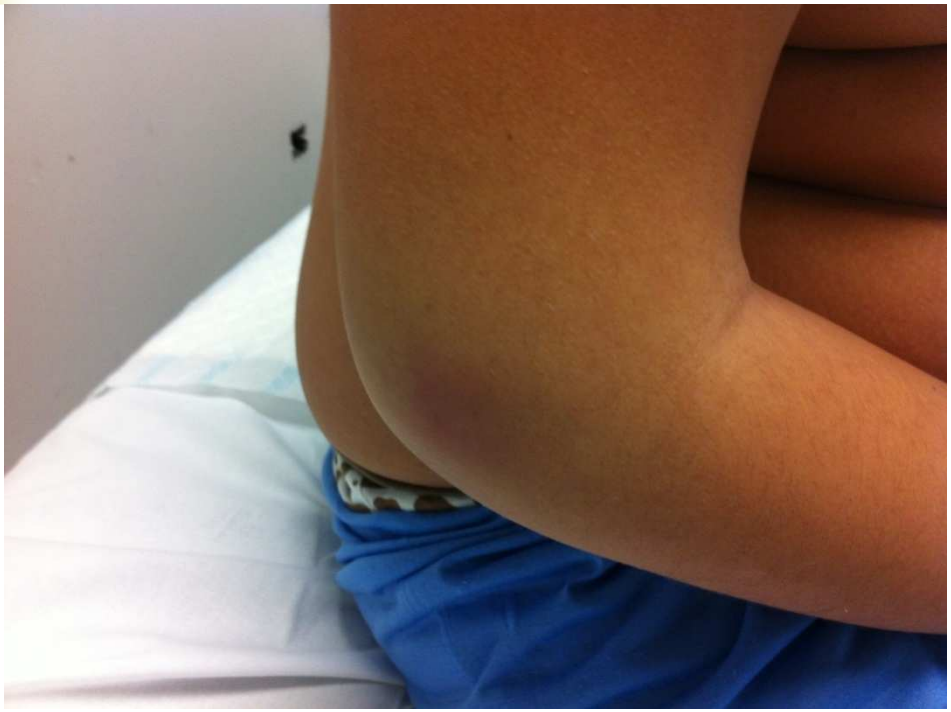
Table 1
Currently recommended antimicrobials for acute haematogenous osteomyelitis with the causative organism identified.

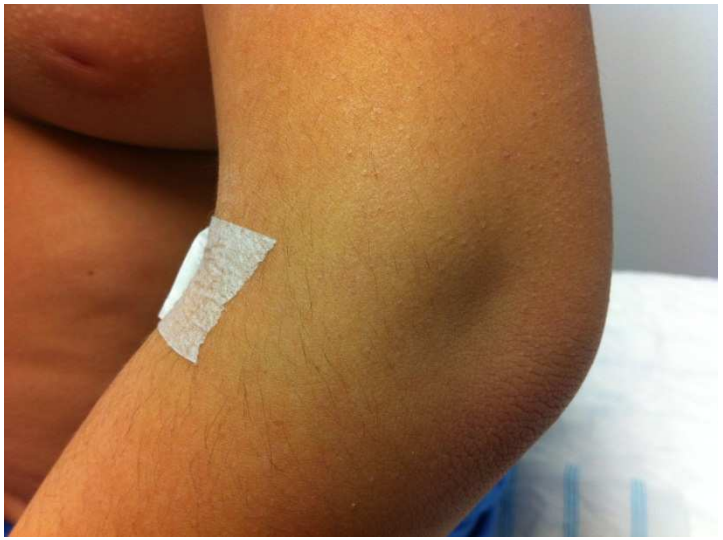
Agent	Antimicrobial	Dose	Country	Treatment (weeks)
Staphylococcus aureus			Germany	8
When >90% of strains in community MSSA	1GC	≥150 mg/kg/day q.i.d.	France	6
	or clindamycin	≥40 mg/kg/day q.i.d.	Australia	5
When >10% of strains MRSA	Clindamycin	≥40 mg/kg/day q.i.d.	Italy	4–6
When >10% of strains MRSA and clindamycin resistance >25%	Vancomycin	≥40 mg/kg/day q.i.d.	UK	4–6
Not responding to vancomycin	Linezolid	≥30 mg/kg/day t.i.d.	USA	4–6
Streptococcus pyogenes	Penicillin G i.v.	≥300 mg/kg/day q.i.d.	Belgium	4
	or 1GC	≥150 mg/kg/day q.i.d.	Finland	3
	or clindamycin	≥40 mg/kg/day q.i.d.		
Streptococcus pneumoniae[a]	Penicillin G i.v.	≥300 mg/kg/day q.i.d.		
	or 1GC	≥150 mg/kg/day q.i.d.		
Haemophilus influenzae type b				
Non-β-lactamase-producing strains	Ampicillin/amoxicillin	≥200 mg/kg/day q.i.d.		
β-Lactamase-producing strains	Cefuroxime	≥150 mg/kg/day q.i.d.		
	or ceftriaxone	≥100 mg/kg/day q.i.d.		
Kingella kingae	Penicillin G i.v.	≥300 mg/kg/day q.i.d.		
	or 1GC	≥150 mg/kg/day q.i.d.		

penicilina G sódica 400.000 UI/kg/día cada 4h
→ amoxicilina 80 mg/kg/día cada 8h (máx. 1g/8h)

4-6 semanas

Artritis séptica

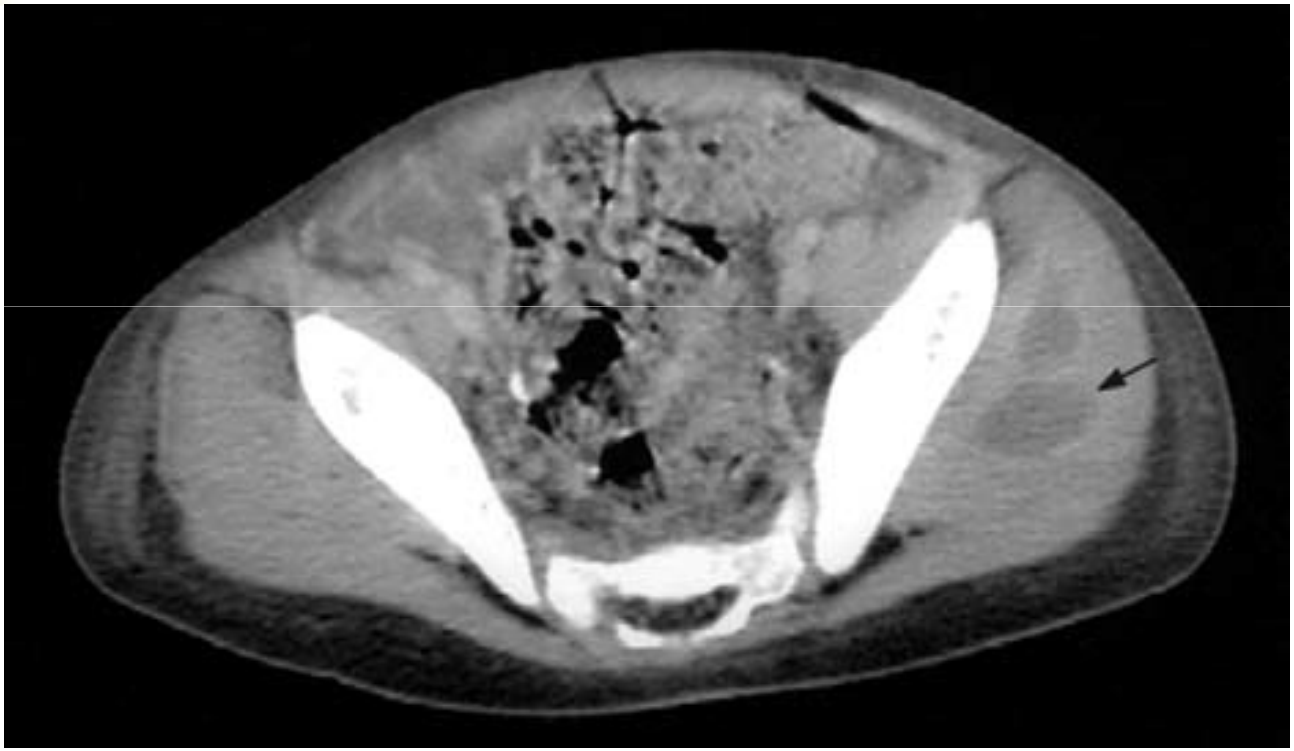




penicilina G sódica 250.000 UI/kg/día cada 4h
→ amoxicilina 50 mg/kg/día cada 8h

3 semanas

Piomiositis



4 años varicela, piomiositis gluteo

Piomiositis

- músculo estriado → abscesos intramusculares
- etiología:

  - S. aureus 75-95%
  - S. pyogenes 1-5%
  - otros: S. grupos C, B y G, E. coli, Serratia, Yersinia, Salmonella, Klebsiella
- AB: 4-6 semanas

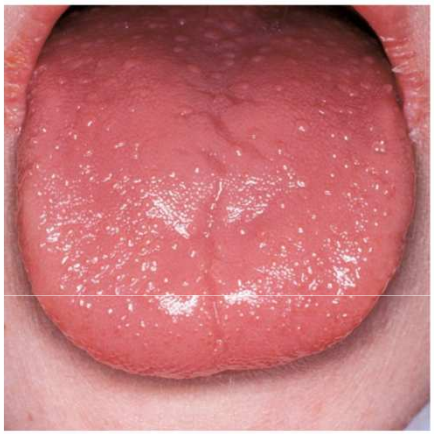
  - penicilina G sódica 250.000 UI/kg/día cada 4h
    + clindamicina 40 mg/kg/día cada 8h (7-10 días)

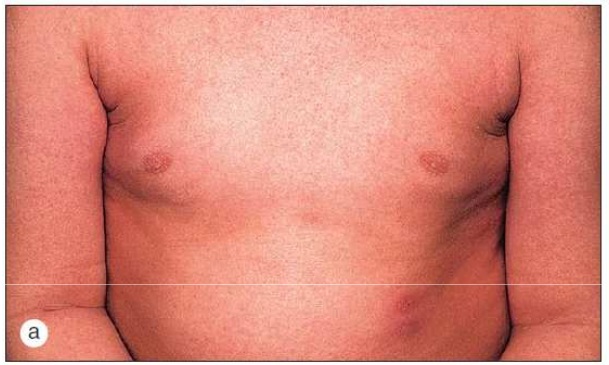
Escarlatina

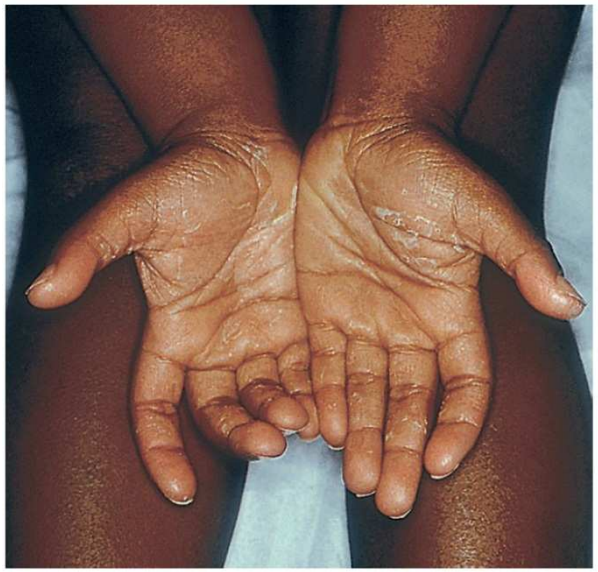
- Toxina eritrogénica (S. pyogenes)
- Pródromos: 24-48 h

  - febre, odinofagia, cefalea, vómitos, enantema, adenopatías
- Exantema eritematoso maculo-papuloso puntiforme, más intenso en flexuras, 3-5 días
- AB: amoxicilina 50 mg/kg/d c8h 10d

Escarlatina



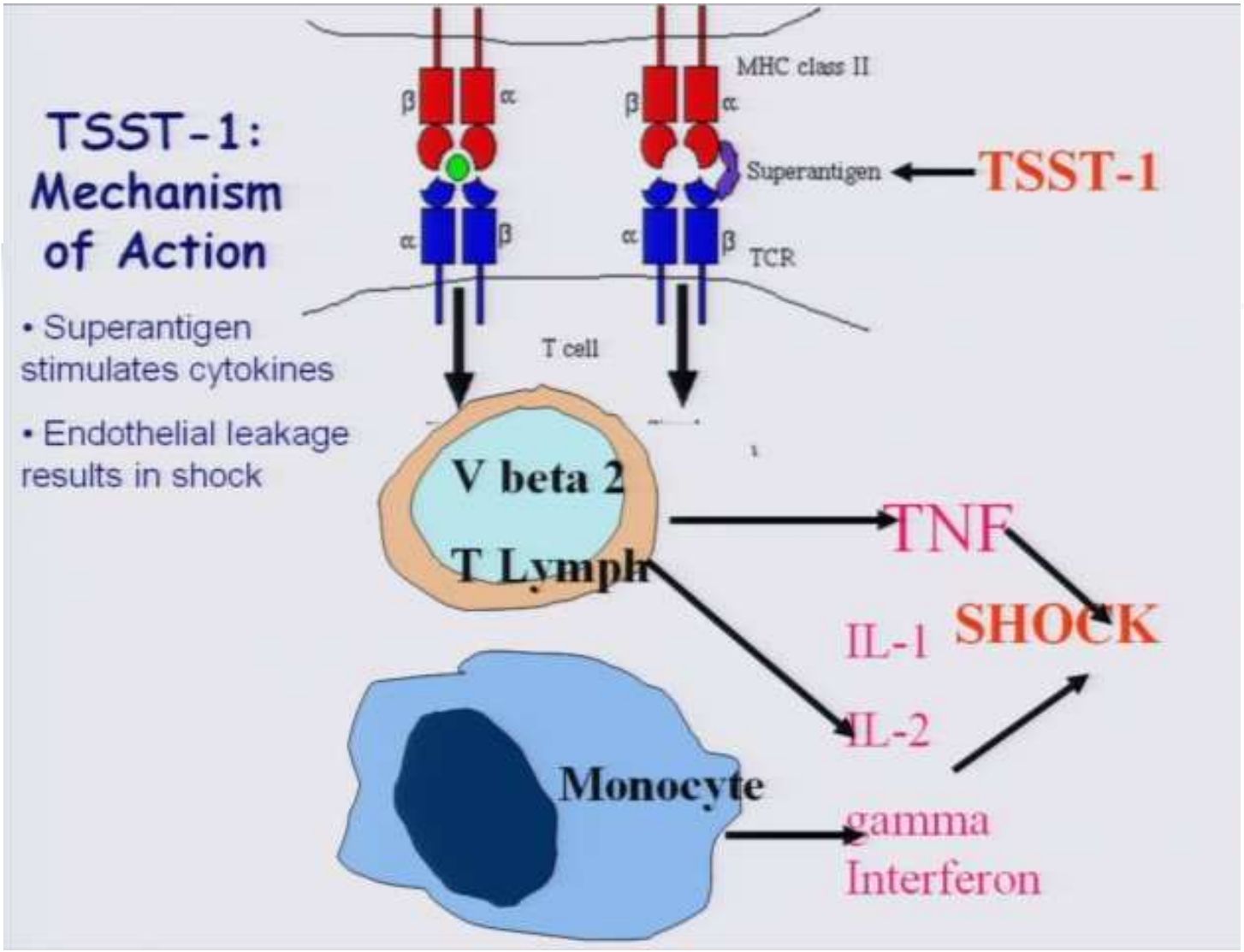




Síndrome shock tóxico

- Toxina liberada desde foco infección:
  - S. aureus: absceso, menstruación y tampones
  - S. pyogenes: celulitis, fascitis necrotizante

Hemocultivo negativo



Antígenos convencionales estimulan pequeña subpoblación células T receptor específico
Superantígenos activan gran número células T con liberación intensa citoquinas

SST estreptocócico

- Aislamiento S. pyogenes
- Hipotensión
- ≥2:

  - renal: ↑ creatinina
  - CID o plaquetas <100.000
  - hepática: ↑bilirrubina o TA
  - síndrome dificultad respiratoria
  - exantema maculoeritematoso generalizado
  - necrosis partes blandas

ORIGINAL PAPER

Clinical characteristics of children with group A streptococcal toxic shock syndrome admitted to pediatric intensive care units

Antonio Rodríguez-Nuñez · Silvia Dosil-Gallardo · Iolanda Jordan ·

Table 1 Patient characteristics at diagnosis of STSS (n=41)

Characteristics	Mean ± SD	n	Percentage
Age (months)	51±46		
Sex (male)		20	48.8
Predisposing factors			
Varicella zoster virus infection		10	24.4
Down syndrome		1	2.4
Underlying disease		1	2.4
Clinical presentation			
Fever		41	100
Vomiting, abdominal pain, or diarrhea		17	41.5
Skin wound		11	27.7
Respiratory symptoms (cough, rhinitis, respiratory distress)		9	21.9
Pharyngitis		6	14.6
Exanthema		5	12.2
Sensorium alteration (somnolence, irritability)		5	12.2
Cellulitis		4	9.7
Arthralgias		3	7.3
Site of *Streptococcus* isolation			
Blood		28	68.5
Pharynx		13	31.7
Pleural fluid		10	24.4
Skin		8	19.5

SD standard deviation

Table 2 Organ dysfunction during evolution

Organ failure	n	Percentage
Shock	41	100
Coagulopathy	32	78.0
Neurologic dysfunction	29	70.7
Respiratory failure	28	68.3
Gastrointestinal	18	43.9
Acute renal failure	16	39.0
Other		
Rhabdomyolisis	10	24.3
Necrotic fasciitis	6	14.6

1998-2009
27% mortalidad

Eur J Pediatr 2011; 170: 639-644

SST estafilocócico

- Fiebre ↑
- Hipotensión
- Eritrodermia macular difusa → descamación
- ≥3:

  - renal: ↑ urea o creatinina o piuria estéril
  - plaquetas <100.000
  - hepática: ↑bilirrubina o TA
  - GI: vómitos o diarrea
  - CK ↑
  - hiperemia vaginal, conjuntival, OF
  - alteración nivel conciencia

BEST PRACTICE

TOXIC SHOCK SYNDROME IN BURNS: DIAGNOSIS AND MANAGEMENT

Amber E Young, Katharine L Thornton

Box 2 Abbreviated criteria[33]

- Pyrexia ⩾39°C
- Rash
- Diarrhoea +/− vomiting
- Irritability
- Lymphopaenia

Hiponatremia también buen marcador

Quemaduras nº1 SST UK

Quemaduras estériles poco extensas

↓ 1-2 días

colonización S. aureus 20% TSST-1

↓

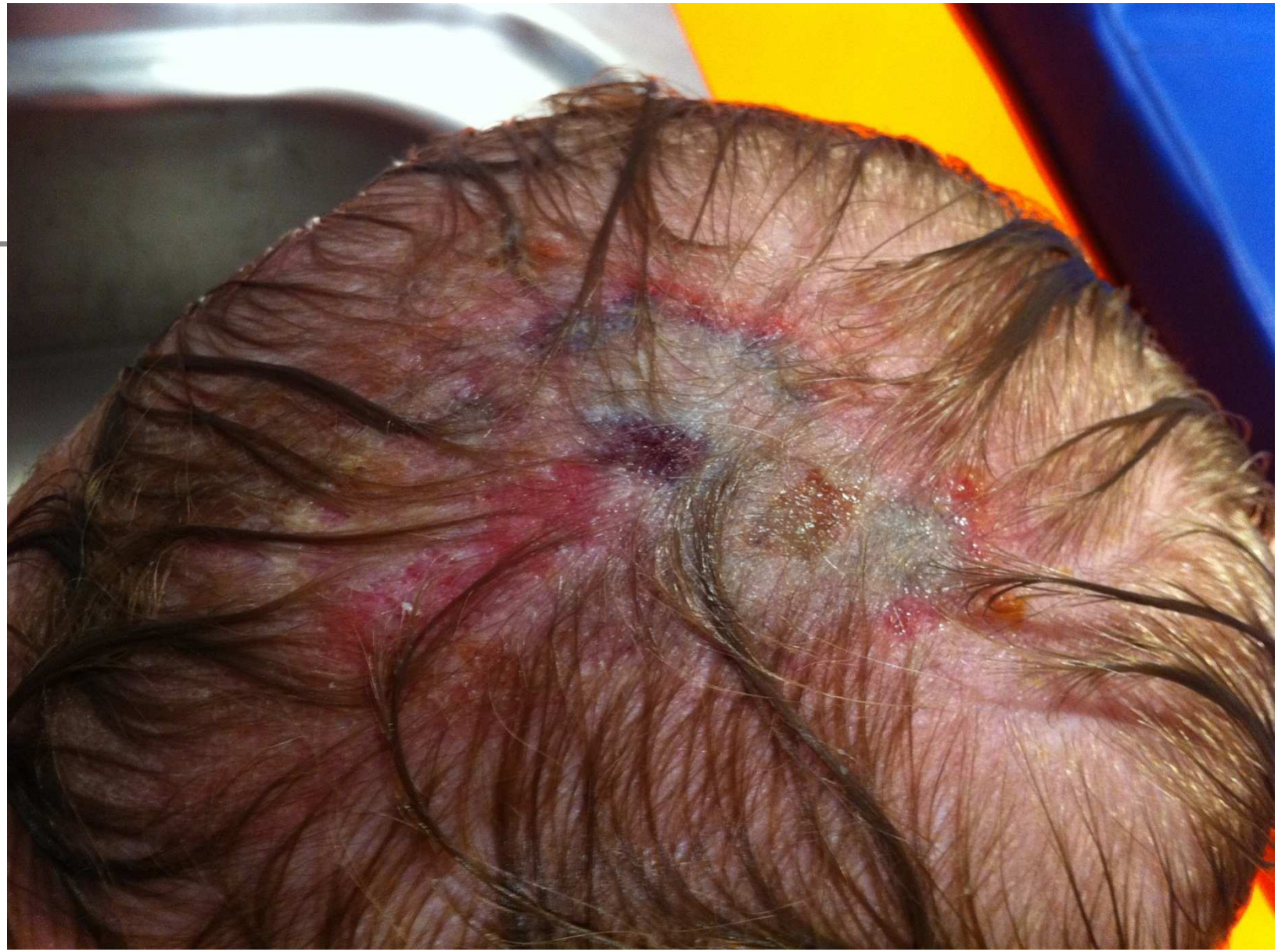
huésped susceptible

<5 años <30% anticuerpos anti-TSST-1

↓

SST

Arch Dis Child Educ Pract Ed 2007;92:97-100.

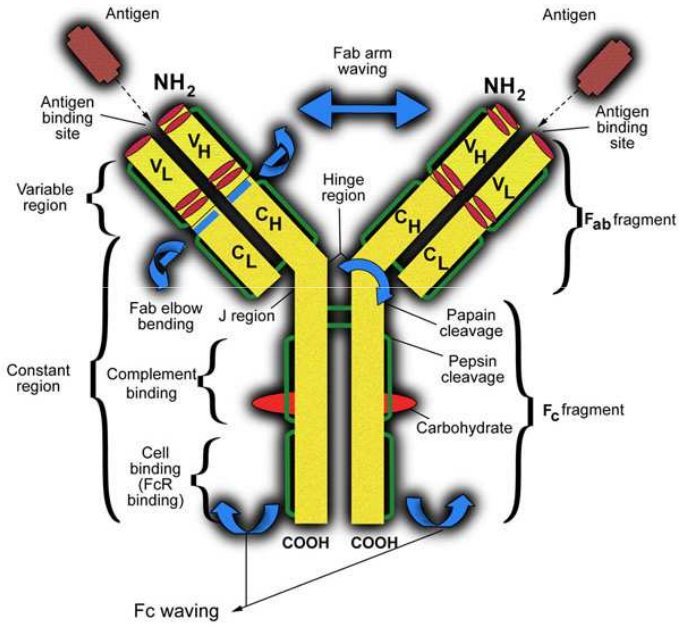


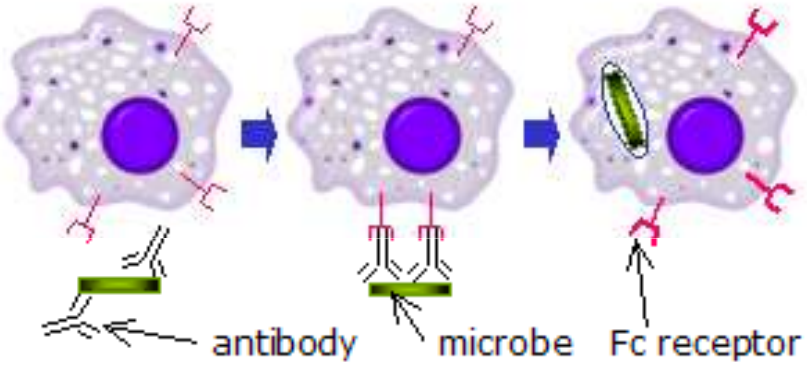
Síndrome shock tóxico

- Monitorización continua UCI-P
- Tratamiento de soporte
- Tratamiento foco infeccioso (drenaje, desbridamiento)
  - tejido necrótico = fuente de toxinas
- AB: 14 días individualizar
  - cloxacilina + clindamicina ev
  - penicilina + clindamicina ev

    250.000 UI/kg/día cada 4h 40 mg/kg/día cada 8h (7-10 días)
- IGIV, corticoides

IGIV





Anticuerpos contra superAg y proteína M + Actividad antiinflamatoria

Bloquea receptor celular de Fc
Fija e inhibe complemento
↓ producción citoquinas

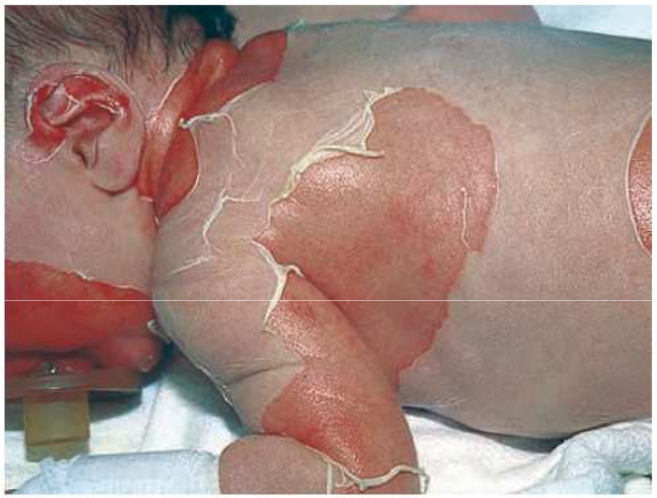
Síndrome shock tóxico

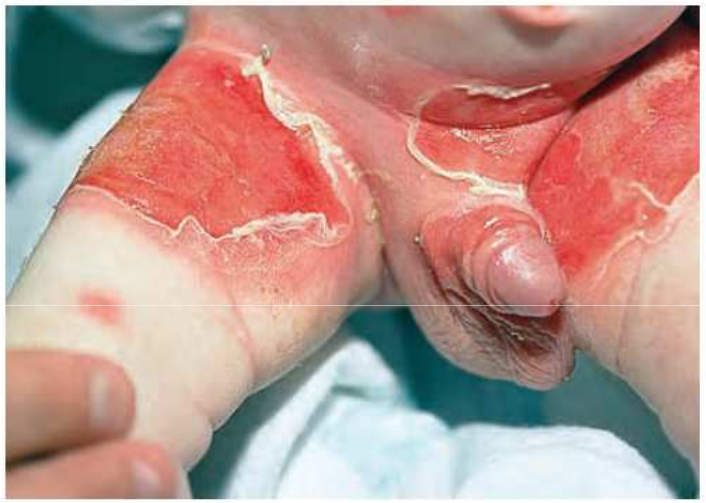
ERITRODERMIA FEBRIL
+
AFECTACIÓN ESTADO GENERAL
+
COMPROMISO ORGÁNICO

Diagnóstico diferencial

- Síndrome piel escaldada
- Stevens-Johnson
- Hipersensibilidad fármacos
- Enfermedad Kawasaki
- Escarlatina
- Adenovirus, enterovirus, VEB, sarampión

Síndrome piel escaldada





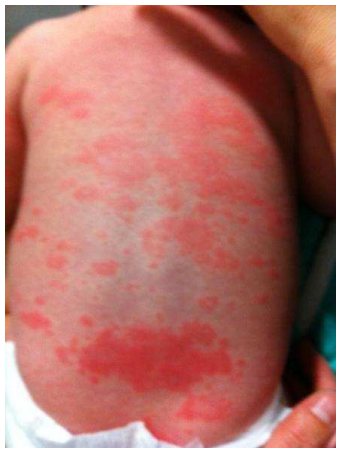
Síndrome de la piel escaldada

- Toxina epidermolítica (S. aureus)
- Frotis nasofaríngeo, conjuntival
- Hemocultivo negativo
- AB:

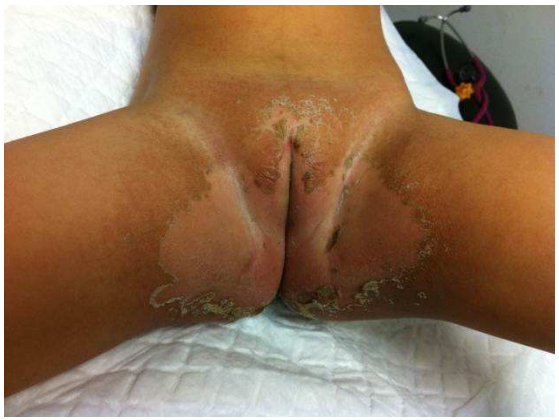
  - cloxacilina o cefazolina ev

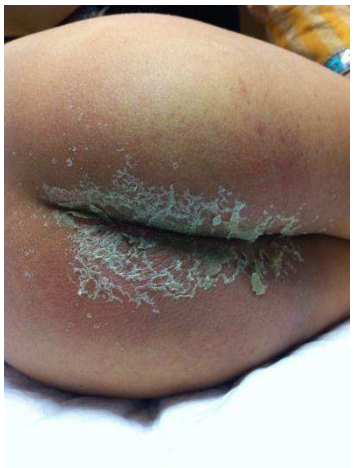
Enfermedad de Kawasaki

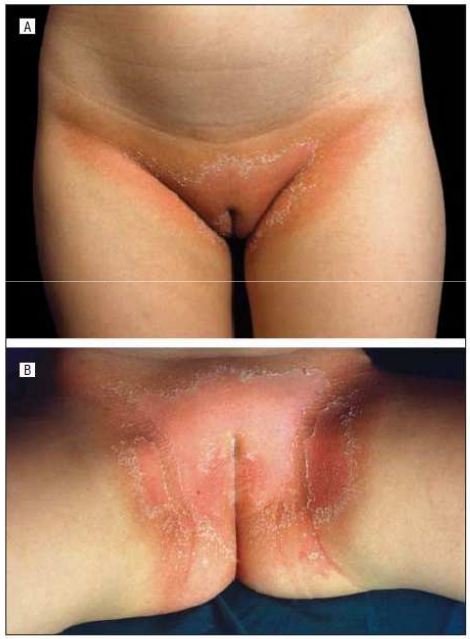
- FIEBRE ≥5 días y 4/5:
  - conjuntivitis
  - mucosa oral
  - rash polimorfo
  - periferia EE
  - adenopatía cervical



Eritema perineal mediado por toxinas







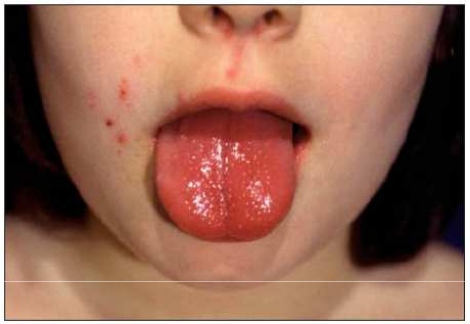
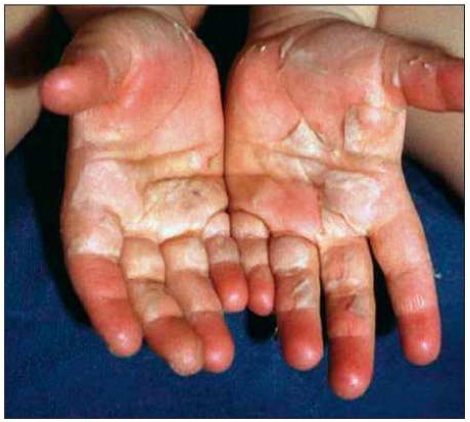


Figure 2. Strawberry tongue in a patient with recurrent toxin-mediated perineal erythema.



Fiebre reumática

Tabla 1 Criterios de Jones revisados por la American Heart Association en 2002

Criterios mayores	Criterios menores
– Artritis migratoria	– Artralgia
– Carditis y valvulitis	– Fiebre
– Corea o afectación del SNC	–Reactantes de fase aguda elevados (VSG, PCR)
– Eritema marginado	
– Nódulos subcutáneos	– Intervalo PR prolongado.

Confirmación infección previa por S.pyogenes
+ 2 criterios mayores
o 1 mayor + 2 menores

Streptococcal skin infection and rheumatic heart disease

Tom Parks[a], *Pierre R. Smeesters*[b,c], *and Andrew C. Steer*[c,d]

Purpose of review

In resource-limited tropical settings, both impetigo and rheumatic disease are endemic. The major cause of impetigo in these regions is the group A streptococcus and there is a growing body of opinion implicating impetigo in the pathogenesis of rheumatic fever and rheumatic heart disease (RHD). This potentially has

Curr Opin Infect Dis 2012;25: 145-153

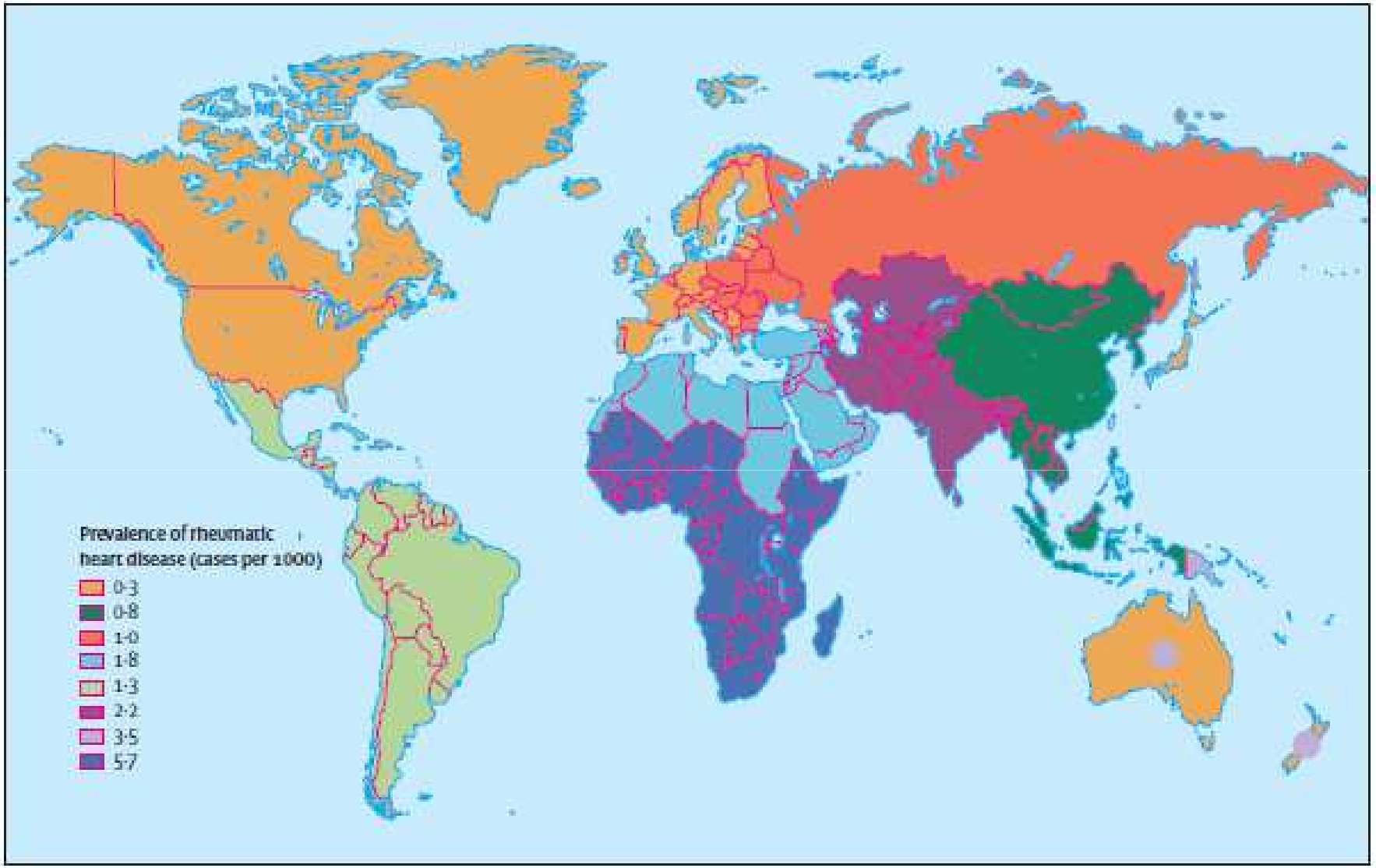


Figure 1: Prevalence of rheumatic heart disease in children aged 5–14 years
The circles within Australia and New Zealand represent indigenous populations (and also Pacific Islanders in New Zealand).

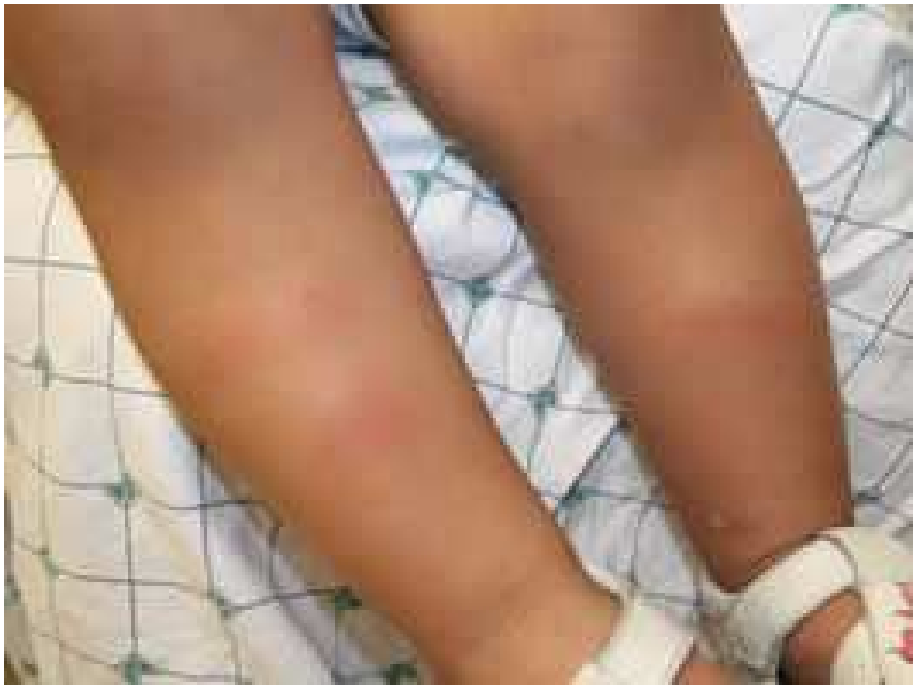
Artritis reactiva postestreptocócica

Tabla 2 Diagnóstico diferencial entre la FRA y la ARPS y actitud terapéutica recomendada

	FRA	ARPS
Pico de incidencia	Infancia (5-20 años)	Adultos mediana edad
Intervalo entre faringitis y artritis	15-21 días	< 10-15 días
Carditis	Frecuente (hasta 60%)	Muy rara
Artritis		
Curso	Breve	Prolongado y recurrente
Migratoria	Frecuente (50-100%)	Raro
Respuesta a salicilatos	Muy buena y rápida	Lenta y parcial
Manifestaciones cutáneas	Raras (4-7%)	Frecuentes (hasta 50%)
Actitud terapéutica	Profilaxis mínimo 10 años[a]	Profilaxis 1 año. Suspender si no evidencia de carditis

ARPS: artritis reactiva postestreptocócica; FRA: fiebre reumática aguda.
[a] En caso de duda entre FRA y ARPS se recomienda profilaxis antibiótica.

Eritema nodoso



- paniculitis septal no necrosante
- nódulos zona pretibial (muslos, nalgas, EESS) 3-6 semanas
- tratamiento AINES

Glomerulonefritis postestreptocócica

- 2-12 años
- FA → 10 días GN

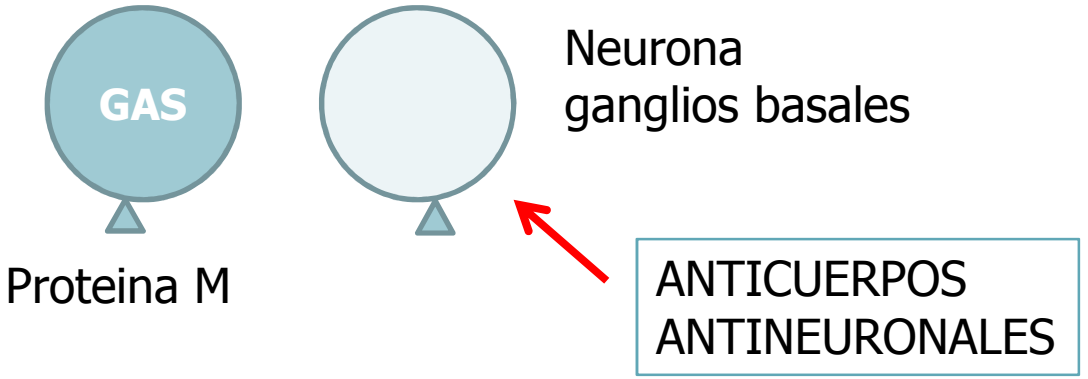
  impétigo → 14 días GN
- reacción HS tipo 3

  depósitos ICs en membrana basal
- asintomática (microhematuria)

  síndrome nefrítico
- ↓C_3 8 semanas

PANDAS

- **P**ediatric **A**utoimmune **N**europsychiatric **D**isorders **A**ssociated with **S**treptococcus
- tics y TOC
- inicio 3 años-pubertad
- curso episódico



Futuro

- Vacuna 26-valente en fase II/III

  - cobertura 80-90% cepas faríngeas e invasivas en Norte América

- Vacuna 30-valente

  - posible reacción cruzada: puede ser efectiva contra serotipos no contenidos en vacuna