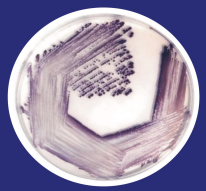

CHROMOBACTERIUM VIOLACEUM- INVISIBLE BUT NOT INVINCIBLE RARE CASE STUDY AND LITERATURE REVIEW

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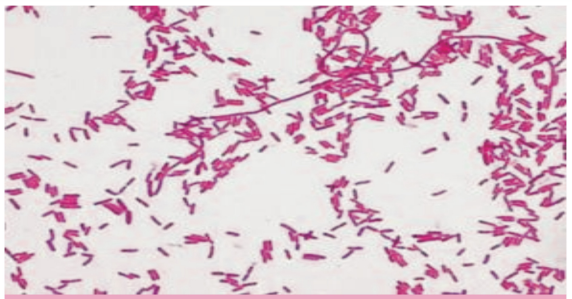
CASE	14 year old previously healthy male	50 day old female baby
History of	Fever, abdominal pain, loose stools, vomiting (5 days)	Swelling over left side of neck (2 days)
Investigation	Heavy bacteriuria Metabolic acidosis Elevated transaminases azotemia,Sepsis, MODS	Elevated transaminases
C & S	Isolate – C violaceum Specimen – blood	Isolate- C violaceum Specimen - pus
Invitro sensitivity	Ciplox, cotrimoxazol, imipenem, oflox, tetracyclines, meropenem	Ciplox, Cotrimoxazol, Meropenem, Ofloxacin
Surgical procedures	None	I and D
Treated with	Cephalexin (R), Cefotaxime (R) Meropenem (S)	Ciplox (S), Meropenem (S) , Ofloxacin (S)
Course in the hospital	2 days	5 days
Known risk factors	None	Diagnosed with CGD on follow up
outcome	Expired	relieved



Facultative anaerobic Gram negative Cocobacilli, motile with single flagellum

Unique purple pigment ***violacein.***

Habitats:natural aquatic environment.

Mesophyllic bacteria.

Geographic range:Between lattitudes 35°N and 35°S

Grows on routine laboratory media.

Associated with multidrug resistance.

TAKE HOME MESSAGE

1.Consider C.violaceum in SEPSIS / MODS

*2.Rule out immunodeficiency in confirmed cases - **CGD***

3. Initiate appropriate antimicrobial therapy as early as possible

4. May become an emergent infection after further global climate change

Virulence factors - endotoxin, adhesin, invasins, cytolytic proteins, biofilm

Biochemical characteristics

Catalase + ONPG + Indole + VP-

Ferments sucrose, mannitol

Mode of entry – non intact skin, GIT, hospital aquired (rare)

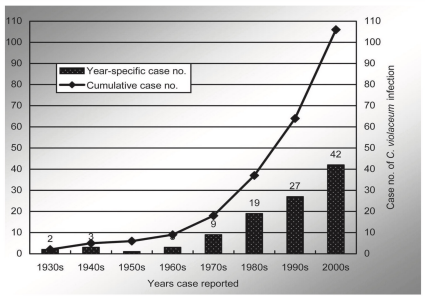
Predisposing factors- immunodeficiency (CGD), neutrophil dysfunction, G6PD deficiency

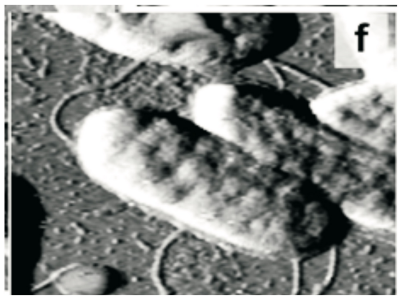
C/F – Fever (100%), abdominal pain (31%), skin lesions (68%), severe sepsis (87%), relapse (6.6%)

Treatment– Meropenem Pefloxacin, Ciprofloxacin, Amikacin, Cotrimoxa zole

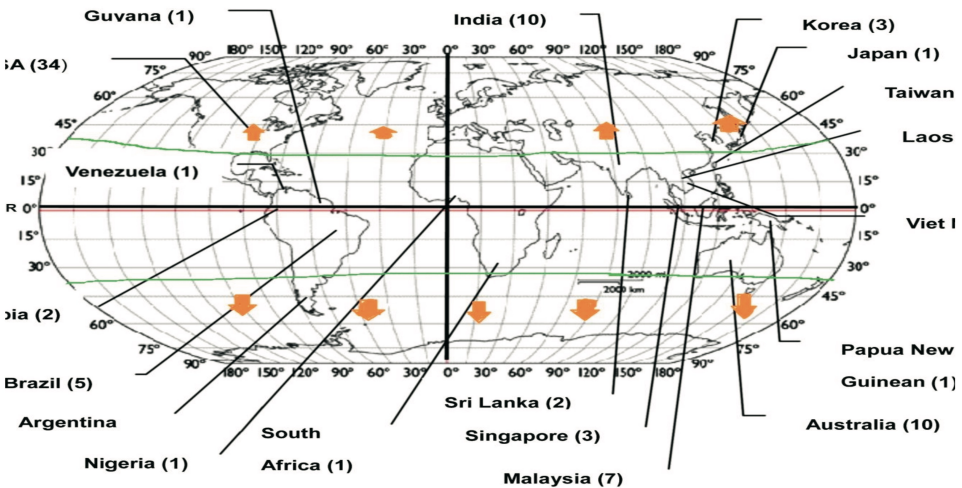
Mortality – 53%

Close DD – Meliodosis (distinguished by PCR)





Case distribution and recent trend of pushing geographic boundaries.



Ching-huei yang , yi - hwei Li, chromobacterium violecium infection : a clinical review of an important but neglected infection; JCMA; 2011; 74;435-441
Kauffman SC, schugurensky A. First case report from Argentina of fatal septicemia caused by chromobacterium violecium. J clin microbiol 1986;23:956-8
Victoria B, Baer H, Ayoub EM. Successful treatment of systemic chromobacterium violecium infection. JAMA 1974;230:578-80.