Caso Clinico: Anemia da Flogosi Cronica

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Presentazione del problema

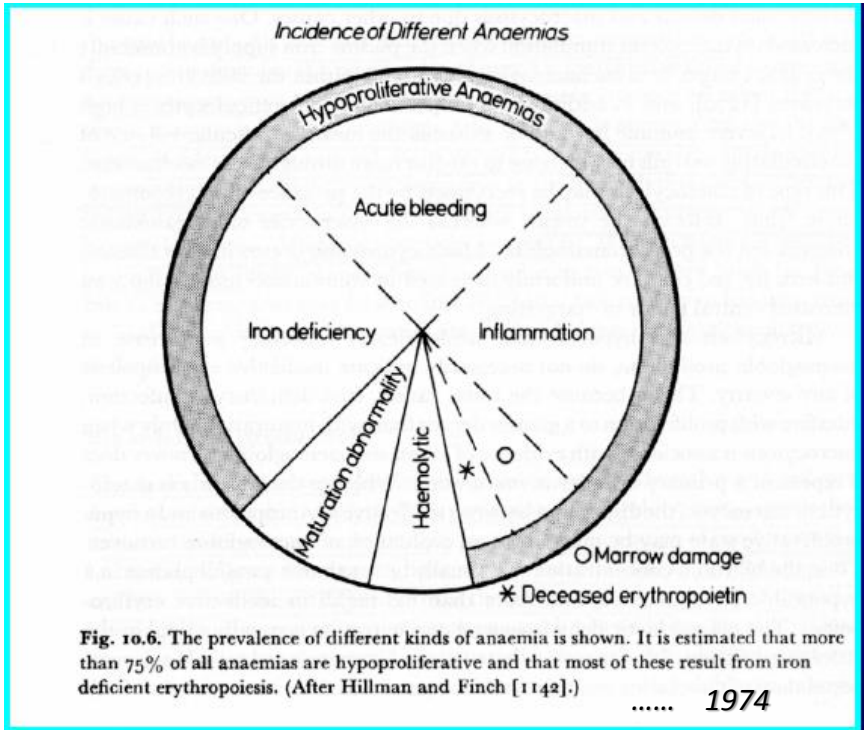
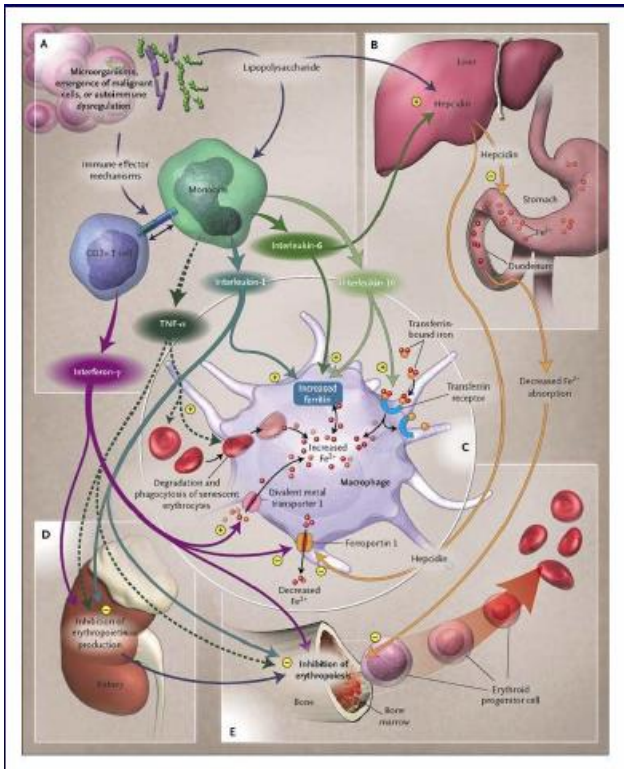


Fig. 10.6. The prevalence of different kinds of anaemia is shown. It is estimated that more than 75% of all anaemias are hypoproliferative and that most of these result from iron deficient erythropoiesis. (After Hillman and Finch [1142].)

..... *1974*



Weiss G. NEJM 2005; 252:1011

STORIA DI MALATTIA

- Visita ematologica urgente per :

  leucocitosi, piastrinosi e marcata anemia
- Uomo 75 anni

ANAMNESI FAMIGLIARE E PERSONALE

- Padre deceduto per neoplasia gastrica
- Madre deceduta per IMA
- 1 sorella affetta da artrite reumatoide
- Vive solo, fuma 40 sigarette/die, BMI 30,7 kg/m^2 (obeso)
- Iperteso, Dislipidemico, Cardiopatia ischemica, Insuff Renale cronica gr IV con Iperuricemia

Esame Obiettivo – Esami Ematochimici

- Atti respiratori nella norma, nulla al torace

  PA 180/90 ; soffio diastolico 2/6;

  Milza 2 cm IP (all'eco 11 cm) Fegato ndp

- Esami ematochimici

  GB 11.000 mmc; (N57, M12, Ba3, E9, L24, APE, Target cell)

  GR 5.200 x 10^6/mm^3, Hgb 8,6 gr/dl, MCV 56 fl, Htc 25 %

  Plt 560x 10^9/L

Esami Ematochimici

- Sideremia 8 mg/dl, TIBC 250 mg/dl, Ferritina 30 ng/ml; Sat TRF (Sid /TIBC) = 3,2%
- Reticolociti 1% ; 60 mmc
- Urea 73 mg/dL ; creat 2,6 mg/dL ; LDH 237 U/L
- VES 80; PCR 20 ; ELF α2 16, γ 22

D1. Possibili diagnosi ?

1. Anemia sideropenica
2. Talassemia
3. Anemia da insuff. Renale
4. IDA + ACD

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- Anemia sideropenica
- Talassemia
- Anemia da insuff. Renale
- IDA+ACD

+ leucocitosi e piastrinosi «reattive»

Table 3. Serum Levels That Differentiate Anemia of Chronic Disease from Iron-Deficiency Anemia.*

Variable	Anemia of Chronic Disease	Iron-Deficiency Anemia	Both Conditions†
Iron	Reduced	Reduced	Reduced
Transferrin	Reduced to normal	Increased	Reduced
Transferrin saturation	Reduced	Reduced	Reduced
Ferritin	Normal to increased	Reduced	Reduced to normal
Soluble transferrin receptor	Normal	Increased	Normal to increased
Ratio of soluble transferrin receptor to log ferritin	Low (<1)	High (>2)	High (>2)
Cytokine levels	Increased	Normal	Increased

* Relative changes are given in relation to the respective normal values.
† Patients with both conditions include those with anemia of chronic disease and true iron deficiency.

Sideremia 8 mg/dl, TIBC 250 mg/dl, Ferritina 30 ng/ml
Saturazione Trasferrina (Sid /TIBC) = 3,2% ; Reticolociti 1% ; 60 mmc
sTfR 8 mg/l ; sTfR /log Ferritina = 5,7

D2. Quale terapia ?

1. **Terapia marziale**
2. **Nessuna terapia è asintomatico**
3. **Eritropoietina**
4. **Trasfusione**
5. **Steroidi**

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Table 4. Therapeutic Options for the Treatment of Patients with Anemia of Chronic Disease.

Treatment	Anemia of Chronic Disease	Anemia of Chronic Disease with True Iron Deficiency
Treatment of underlying disease	Yes	Yes
Transfusions*	Yes	Yes
Iron supplementation	No	Yes†
Erythropoietic agents	Yes‡	Yes, in patients who do not have a response to iron therapy

* This treatment is for the short-term correction of severe or life-threatening anemia. Potentially adverse immunomodulatory effects of blood transfusions are controversial.

† Although iron therapy is indicated for the correction of anemia of chronic disease in association with absolute iron deficiency, no data from prospective studies are available on the effects of iron therapy on the course of underlying chronic disease.

‡ Overcorrection of anemia (hemoglobin >12 g per deciliter) may be potentially harmful to patients; the clinical significance of erythropoietin-receptor expression on certain tumor cells needs to be investigated.

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Terapia e Rivalutazione

Supporto marziale : Ferrograd 1 cpr/die x 30 gg

- GB 11.000 mmc; (N70, M12, Ba3 , L25, APE, Target cell)
  GR 6.200 x 106/mm3, Hgb 9,5 gr/dl, MCV 65 fl, Htc 29 %, Plt 468 x 109/L

- Sideremia 60μg/dl, TIBC 120 μg/dl, Ferritina 200 ng/ml;
  Sat TRF (Sid /TIBC) = 30 %
  sTfR = 3 sTfR/ ferritina log = 0,76
- Urea 60mg/dL ; creat 2,2mg/dL ; LDH 300 U/L

- Elettroforesi emoglobina : Hgb A2 > 3,5

Esami Ematochimici (2)

- AGA - AEA -TTG = Normali
- SOF = neg x 3 campioni
- Dosaggio EPO 1,3 UI/L
- Ra Test, WR = Neg ; ANA 1:80

CONTROLLI C/O CURANTE

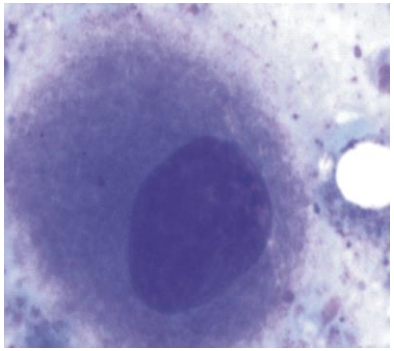
..... PASSANO 5 MESI .....

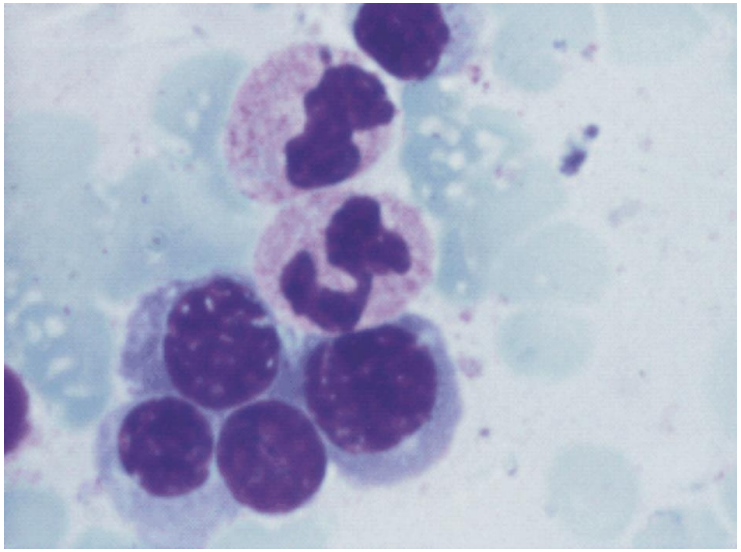
ACCESSO IN PS per TVP

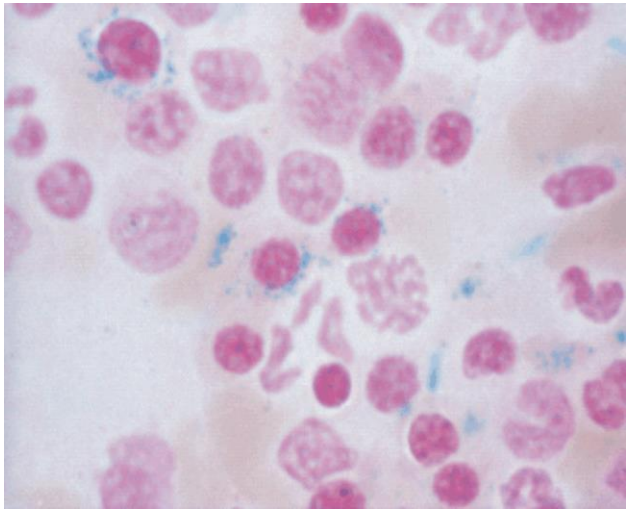
- GB 9.000 mmc; (N75, M15, B1 , L20, APE, Target cell)
  GR 5.200 x 106/mm3, Hgb 9,3 gr/dl, MCV 65 fl, Htc 29 %,
  Plt 500 x 10^9/L

Diagnostic Criteria for Philadelphia-Negative
Classical Myeloproliferative Neoplasms According to WHO (2008)

Valutazione Midollare







- BOM : midollo ipercellulato con iperplasia eritroide magaloblastica, megacariociti iperplastici con nuclei iperlobulati e organizzati in lassi aggregati perivascolari. CD34 < 5%

- Citogenetica: 46 XY [24] 46 XY + 8 [1]

- JAK2 V617 = POS

CONCLUSIONE

- Anemia refrattaria con Sideroblasti ad anello associata con marcata trombocitosi = RARS-T

INIZIA TERAPIA CON IDROSSIUREA 1gr/die

QUALCHE COMMENTO……. (un po' di OUTING)

- «ANEMIA DA MALATTIA CRONICA»
  «FLOGOSI CRONICA»

- TROMBOCITOSI «REATTIVA / CLONALE»

- La presenza del Trait Talassemico ha un po' «mascherato» le ipotesi ……

QUALI POSSIBILI DIAGNOSI DIFFERENZIALI ?

- Leucemia Mieloide Cronica
- Mielofibrosi
- Trombocitemia Essenziale

PROGNOSI

- RARS T = RARS ma < TE
- JAK2 V617 + = prognosi favorevole (> valore di Hgb)
- Se JAK2 neg ….. MPL, TET …. Non ancora definito

- IDROSSIUREA = ottimo controllo PLT ma spesso anemia…. ± EPO ???
  ± Trasfusioni / Chelazione ?

CONCLUSIONI

- Il trattamento della malattia cronica migliora l'anemia da malattia cronica (ONCO / talassemia / RARS-T / IRC / obesità ….)

- Attenzione al Fe x OS ….

  C'è l'epcidina aumentata (non si assorbe ferro)

  Promuove l'attivazione di radicali liberi che possono determinare danno endoteliale e tissutale

- Somministrazione di EPO in malattia Mieloproliferativa

  no per normativa e per interazione con cell NPL? …. ma …..

Il FUTURO….

- Anticorpi monoclonali anti epcidina…
- Ferrochelazione x indurre l'aumento di Eritropoietina endogena
- Ferro liposomiale / ferro chelato / ferro maltosio