

Glandular Fever

(Infectious Mononucleosis)

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Introduction

Glandular fever, sometimes called infectious mononucleosis, is an acute herpes virus infection caused by the Epstein-Barr virus (EBV). It is marked by fever, sore throat, swollen lymph glands, abnormal liver function, and bruising. The disease is usually transmitted by droplet infection but is not highly contagious. Glandular fever most commonly arises in the 15 to 25 years age group, but children are also affected. The infection usually occurs sporadically, but epidemics are occasionally seen. In childhood, the disease is mild and usually unnoticed. The older the person, the more severe the symptoms are likely to be. The incubation period is variable, but is most often between 4 and 20 days.

Pathology

The characteristic pathological change is lymphoid and reticulo-endothelial hyperplasia, with the appearance of abnormal mononuclear cells in the blood. This gives rise most noticeably to enlargement of lymph nodes, spleen and tonsils, but because reticulo-endothelial tissue is widespread, there is great variation in the pattern of illness produced. The illness is characterized by specific changes in the white cells of the blood and by the presence of heterophil antibody in the serum.

Symptoms

The symptoms include:

1. Sudden onset with fever of 101 to 104°F often with vomiting.
2. Transient sore throat or mild tonsillitis.
3. Severe frontal headache and lymph pains.
4. Sweating may be profuse.
5. On the 2nd or 3rd day painful enlargement of the upper cervical glands which remain discrete and tender. Sometime they reach a considerable size and are followed by enlargement of the auxiliary, inguinal and epitrochlear glands
6. Abdominal pain and tenderness with pyrexia and vomiting, indicate enlargement of abdominal gland and may proceed cervical adenitis-then appendicitis is often diagnosed.
7. Some enlargement of liver and spleen is common.
8. A painful cough may indicate enlarged mediastinal glands.
9. At the junction of hard and soft palate multiple pinpoints, petechiae, occur 3-14 days after the onset.

Diagnosis

Glandular fever should always be suspected when a child or young adult presents with fever, enlarged lymph nodes and sore throat. The white cell count is usually typical. After an initial leucopenia, an absolute lymphocytosis develops. The total white cell count lies between 10,000 and 20,000 cells per cmm, of which 50 to 80 per cent are mononuclears. Films show normal lymphocytes, normal monocytes and many large atypical lymphocytes (so-called 'glandular fever cells'), with deep blue-staining, foamy, vacuolated cytoplasm, irregular outline and an oval or kidney-shaped nucleus.

Some 80 per cent of patients develop heterophil antibody, which can be demonstrated by the Paul-Bunnell test. It should be noted that, in some patients, the Paul-Bunnell titre rises slowly over a period of weeks, and repeated tests are indicated when the symptoms and the blood picture suggest the diagnosis. About one-fifth of the patients fail to develop these antibodies. Some of these cases are examples of infections with cytomegalovirus or with toxoplasma and appropriate serological tests should be undertaken.

Case Study

A female patient, aged 14 visited Homoeopathy Clinic with the complaint of High fever (103°F) with sore throat, slight tenderness of lymph nodes and body pain. The Examination of the Blood dated 4/1/2003 showed that the total WBC count was 21,200 /ul with Neutrophils High and Lymphocytes Low. Urine examination dated 4/1/2003 showed albumin, ketones bodies and epilitelial cells 2-3/Hpf.

As per these details the case was suspected to be that of Glandular Fever.

Homoeopathic Treatment

The following medicines were prescribed:

1. Merc Sol 1M
2. Echinacea Q, 15 ml
3. Baptisia Q, 15 ml
4. Ferrum Phos, 6x Biochemic
5. Kali Mur, 6x Biochemic

The patient reported back on 9/1/2003 with slight improvement in throat pain and intensity of fever. Vibronic preparations Infection 200 and Flu 30 tds were added to earlier prescription and she asked to report back on 18/1/2003 with Complete Blood Examination.

On 18/1/2003, the fever was reported reduced but prominent cervical lymph nodes (knot like). The CBC report dated 14/1/2003 showed total WBC count 16,400/ul with Neutrophils High and Lymphocytes Low. The prescription was modified as:

- Ferrum Phos and Kali Mur replaced by Biochemic Combination 22
- Cistus Can 30
- Infection 200.
- Echinacea Q, 15 ml
- Baptisia Q, 15 ml

The patient report back on 5/2/2003 with complete Blood Count Report. The total WBC count this time was reduced to 10,800 /ul and Netuophils and Lymphocytes Normal. There was complete symptomatically relief except enlarged lymph nodes.

As there was family history of Tuberculosis so Tuberculinum 1M and Drosera 1M, 3 doses each were prescribed with continuation of previous medication and was asked to report back after 20 days. Patient reported back on 31/3/2003 with all reports normal and no glandular swelling.



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O. N. G. C. Township, Phase - I, Panvel - 410221. ☎ Tel. No. 745 1069 - 70, 745 3770 - 74 Ext. 790

Date : 04/01/2003

Lab No : 7

Name : Ms. Sajiya.

Sex Female

OPD No. : A-4

Ref. by : Dr. B. S. Sahani

COMPLETE BLOOD COUNT

Test	Result	Units	Normal Range
<u>Haemoglobin</u>	12.10	gm%	12 - 16
R.B.C. Count		$\times 10^6/\mu\text{l}$	4.2 - 5.4
Haematocrit		%	37 - 47
M.C.V		fl	76 - 96
M.C.H.		pg	27 - 32
M.C.H.C.		gm/dl	32 - 36
<u>Total W.B.C. Count</u>	21,200	/ μl	4000 - 10000
<u>Differential Count</u>			
Neutrophils	80	%	40 - 75
Lymphocytes	13	%	20 - 45
Eosinophils	04	%	1 - 6
Monocytes	03	%	upto 8
Basophils	00	%	upto 1
Morphology of WBCs	Nil		
Morphology of R.B.C.	Normal		
PLATELET COUNT		/cmm	150000 - 450000
Platelets	Adequate on smear.		
Malarial Parasites	Not Detected		

Dr. R. WINDRA STRAUER
PATHOLOGIST



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Lab No : 7

Name : Ms. Sajiya.

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OPD No. : A-4

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EXAMINATION OF URINE

PHYSICAL EXAMINATION

Quantity	15 ml
Deposits	Present
Colour	Pale Yellow
Reaction	Acidic
Specific Gravity	1.020
Appearance	Hazy

CHEMICAL EXAMINATION

Albumin	Trace
Blood Test	Nil
Sugar	Nil
Bile Pigment	Nil
Bile Salts	Nil
Ketone Bodies	Trace

MICROSCOPIC EXAMINATION

Red Blood Cells	Nil
Pus Cells	1-2/Hpf
Epithelial Cells	2-3/Hpf
Casts	Nil
Crystals	Nil
Spermatozoa	Nil
Yeast	Nil
Trichomonas Vaginalis	Nil
Mucus	Nil

Dr. RAVENDRA STRA
PATHOLOGIST.



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Date : 14/01/2003

Lab No : 15

Name : Ms. Sajiya.

Sex Female

OPD No. : A-4

Ref. by : Dr. B. S. Sahani

COMPLETE BLOOD COUNT

Test	Result	Units		Normal Range
<u>Haemoglobin</u>	11.70	gm%	Low	12 - 16
R.B.C. Count		$\times 10^6/\text{ul}$		4.2 - 5.4
Haematocrit		%		37 - 47
M.C.V		fl		76 - 96
M.C.H.		pg		27 - 32
M.C.H.C.		gm/dl		32 - 36
<u>Total W.B.C. Count</u>	16,400	/ul	High	4000 - 10000
<u>Differential Count</u>				
Neutrophils	80	%	High	40 - 75
Lymphocytes	18	%	Low	20 - 45
Eosinophils	01	%		1 - 6
Monocytes	01	%		upto 8
Basophils	00	%		upto 1
Morphology of WBCs	Nil			
Morphology of R.B.C.	Normal			
PLATELET COUNT		/cmm		150000 - 450000
Platelets	Adequate on smear.			

Dr. RAVINDRA BIRAJDAR
PATHOLOGIST.



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Date : 05/02/2003

Lab No : 16

Name : Ms. Sajiya.

Sex Female

OPD No. : A-4

Ref. by : Dr. B. S. Sahani

COMPLETE BLOOD COUNT

Test	Result	Units		Normal Range
<u>Haemoglobin</u>	11.90	gm%	Low	12 - 16
R.B.C. Count		$\times 10^6/\mu\text{l}$		4.2 - 5.4
Haematocrit		%		37 - 47
M.C.V		fl		76 - 96
M.C.H.		pg		27 - 32
M.C.H.C.		gm/dl		32 - 36
<u>Total W.B.C. Count</u>	10,800	/ μl	High	4000 - 10000
<u>Differential Count</u>				
Neutrophils	57	%		40 - 75
Lymphocytes	42	%		20 - 45
Eosinophils	01	%		1 - 6
Monocytes	00	%		upto 8
Basophils	00	%		upto 1
Morphology of WBCs	Nil			
Morphology of R.B.C.	Normal			
PLATELET COUNT		/cmm		150000 - 450000
Platelets	Adequate	on smear.		

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Date : 31/03/2003

Lab No : 9

Name : Ms. Sajiya.

Sex Female

OPD No. : A-4

Ref. by : Dr. B. S. Sahani

COMPLETE BLOOD COUNT

Test	Result Units	Normal Range
<u>Haemoglobin</u>	12.40 gm%	12 - 16
R.B.C. Count	$\times 10^6/\mu\text{l}$	4.2 - 5.4
Haematocrit	%	37 - 47
H.C.V	fl	76 - 96
M.C.H.	pg	27 - 32
M.C.H.C.	gm/dl	32 - 36
<u>Total W.B.C. Count</u>	7,500 / μl	4000 - 10000
<u>Differential Count</u>		
Neutrophils	61 %	40 - 75
Lymphocytes	38 %	20 - 45
Eosinophils	01 %	1 - 6
Monocytes	00 %	upto 8
Basophils	00 %	upto 1
Morphology of WBCs	Nil	
Morphology of R.B.C.	Normal	
PLATELET COUNT	/cmm	150000 - 450000
Platelets	Adequate on smear.	

[Signature]
PATHOLOGIST