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# **Phospholipid Autoantibodies And Gastrin Secretion As Markers For Diabetic Neuropathy**

Thesis

Submitted for partial fulfillment of M.D. Degree in  
Internal Medicine

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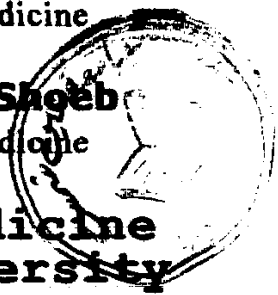
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***Phoebe Yossif***  
***(1999)***

## List of Abbreviation

|                    |                                                     |
|--------------------|-----------------------------------------------------|
| ACA                | Anticardiolipin antibody.                           |
| AN                 | Autonomic neuropathy.                               |
| APA                | Antiphospholipid antibody.                          |
| CCK                | Cholecystokinin.                                    |
| CD5                | Cluster of differentiation 5                        |
| CF ADM             | Complement fixing adrenal medullary antibody.       |
| CF SG              | Complement fixing sympathetic ganglia antibody.     |
| CL                 | Cardiolipin.                                        |
| CVS                | Coefficient of variance.                            |
| DL                 | Distal latency.                                     |
| DM                 | Diabetes mellitus.                                  |
| DPN                | Diabetic peripheral neuropathy.                     |
| GAD                | Glutamic acid decarboxylase.                        |
| GRP                | Gastrin releasing peptide.                          |
| HbA <sub>1</sub> C | Haemoglobin A <sub>1</sub> C (Glycated haemoglobin) |
| HCO <sub>3</sub>   | Bicarbonate.                                        |
| HLA                | Human leucocytic antigen.                           |
| HP                 | Helicobacter pylori.                                |
| ICA                | Islet cell antibody.                                |
| IDDM               | Insulin dependent diabetes mellitus.                |
| IGF                | Insulin like growth factor.                         |
| LA                 | Lupus anticoagulant.                                |
| NCV                | Nerve conduction velocity.                          |
| NGF                | Nerve growth factor                                 |
| NIDDM              | Non-insulin dependent diabetes mellitus.            |
| PC                 | Phosphatidyl choline.                               |
| PE                 | Phosphatidyl ethanolamine.                          |
| PI                 | Phosphatidyl inositide.                             |
| PLAs               | Phospholipid antibodies.                            |
| PLs                | Phospholipids                                       |

|      |                                       |
|------|---------------------------------------|
| PP   | Pancreatic polypeptide.               |
| PS   | Phosphatidyl serine.                  |
| RIA  | Rdioimmunoassay .                     |
| SLE  | Systemic lupus erythematosus.         |
| SMS  | Stiff man syndrome.                   |
| TDT  | Thermal discriminatoin threshold.     |
| VDRL | Venereal disease research laboratory. |
| VIP  | Vasoactive intestinal peptide.        |
| VPT  | Vibration perception threshold.       |

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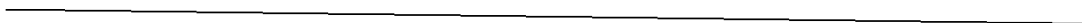
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## **Abstract:**

There is growing evidence suggesting the role of autoimmunity as one possible etiology of diabetic neuropathy. On the other hand, gastrin changes in diabetic autonomic neuropathy may be an important easily measured indicator.

**Subjects and Methods:** Sera from 26 diabetic patients with neuropathy (group I) (diagnosed according to MNSI and MMDNS), 25 diabetics without neuropathy (group II) and 10 healthy controls were examined for IgG ACA, IgM ACA using ELISA technique, along with measuring fasting and postprandial serum gastrin using RIA.

**Results:** ACA IgG was found to be significantly higher in diabetics with neuropathy than diabetics without ( $P < 0.05$ ) and highly significant higher in the later group than healthy control ( $P < 0.01$ ), and both fasting and postprandial serum gastrin were significantly higher in diabetics with autonomic neuropathy than diabetics without ( $P < 0.05$  and  $< 0.01$  respectively).

**Conclusion:** It is concluded that autoimmunity may play an important role in pathogenesis of diabetic neuropathy and that diabetics with autonomic dysfunction suffer from hypergastrinemia both basal and postprandial in absence of other causes of high gastrin secretion.

