Emerging Role of DPP-4 Inhibitor Vildagliptin in the Management of Type-2 Diabetes

Sir,

This is regarding the review article ‘Emerging role of DPP-4 inhibitor Vildagliptin in the management of Type-2 Diabetes’ by Sanjay Kalra in JAPI, April 2011 edition vol. 59.

It has certain factual incorrect observations which should be brought to the notice to avoid any misinformation being spread to the medical fraternity.

The article mentions that 1. GLP1 and GIP are released from beta cells of the islets of Langerhans in response to meal ingestion; 2. In T2DM, effects of GLP1 functions are preserved.

Both of the above observations are not as per the real facts:-

1. GLP1 is secreted from L cells whereas GIP is derived from 153 Aminoacid proprotein encoded by the GIP gene and synthesised by the K cells found in the mucosa of the duodenum and jejunum.1

2. In T2DM patients, the incretin response is deficient as compared to normal individuals.2,3

Please do not publish incorrect facts to maintain the standard of your journal.

References
1. Garoth C Lim, Patricin L Brubaker. Glucagon-like peptide 1 secretion by the L cells, the view from within. Diabetes 2006;55:supplement 2, s70-s77.

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Reply from Author

SIR

I thank the reader for his assiduous perusal of the review.

1. The sentence mentioned on page two of article (2011,5; 238, JAPI) under heading “New approach in management of T2DM” should be read as :

“The new approach in management of T2DM is based upon the effects of incretin hormones; Glucagon-like peptide-1 (GLP-1) and glucose-dependent insulino tropic peptide (GIP), gastrointestinal hormones which cause insulin to be released from β-cells of the islets of Langerhans into the bloodstream primarily in response to meal ingestion.”

I apologize for the oversight in editing.

2. “In T2DM effects of GLP-1 functions are preserved”, is a correct statement, with multiple references.1,2

The medical fraternity is mature enough not to be mislead any errors in content because of editing oversight; at the same time medical science is a continuously evolving field , as the response to query 2 depicts.

References

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Osseous Hydatid Cyst

Sir,

A 30 year old male farmer of Narnaul district, presented with a 2 years history of progressive radicular back pain radiating to left anterolateral thigh, which increased on straining, coughing and sneezing along with a history of episodic urticaria, resolving partially after taking anti histaminics.

His general physical and systemic examinations were normal except for a localized tenderness over L2 and L3 vertebra. Hematological parameters revealed eosinophilia (8%).

Biochemical profiles including liver, kidney function tests were normal. Total serum IgE value was >2000 IU/ml. Serology for anti Echinococcus IgG antibody was found to be positive. Magnetic resonance images (MRI) of the lumbo sacral spine showed expansive, cystic, destructive lesion involving vertebral body and left side of posterior elements of L3 vertebra with surrounding narrow edema and adjacent left pre and paravertebral and intraspinal epidural components, resulting in indentation over thecal sac and compression over existing left side nerve roots (Figures 1 and 2).

Macroscopic examination of the surgical specimen showed several small greyish white soft tissue pieces and few pearly white soft tissue cysts. Microscopically, hydatid cyst was seen with surrounding tissue showing non-specific inflammatory reaction.

The patient was put on albendazole 400 mg bid. It was given in 3 cycles of 4 weeks each with 2 weeks of drug free interval in between the cycles. Prednisolone 40 mg daily for 3 weeks was used with the first cycle of albendazole to ameliorate urticarial reaction.

I express my gratitude for your support and cooperation.

References
Fig. 1: MRI of the Lumbar spine showed expansile, altered marrow signal intensity destructive lesion involving L₃ vertebra with adjacent prevertebral and intraspinal epidural component, resulting in indentation over thecal sac.

Fig. 2: Axial MRI showing expansile, destructive lesion involving vertebral body and left sided posterior elements of L₃ vertebra with adjacent left pre and paravertebral and intraspinal epidural component, resulting in indentation over thecal sac and compression over existing left side nerve roots (hyperintense on T2 weighted images).

sensitive than serodiagnostic assay. Some imaging characteristics have been described as typical of spinal HD. These include lack of osteoporosis and sclerosis in the host bone; absence of damage to the disk spaces and spread of the disease via a subperiosteal and subligamentous path; paraspinal extension; and involvement of a contiguous ribs. In contrast to hydatid cysts located within the brain, spinal hydatid cysts demonstrate no rim enhancement after contrast material injection. The presence of a markedly hypo intense cyst wall on T₁ and T₂ weighted images is characteristic of HD.

Treatment is difficult because of the progressive nature of the bone involvement. The combination of medical and surgical treatment has been found to be more efficient than surgical treatment alone. Albendazole has been found to be better absorbed than mebendazole and exhibits superior efficacy against helminthes. It should be started preoperatively so as to limit dissemination of daughter cysts during operative procedure. Despite treatment, the disease frequently relapses with progressive destruction of the vertebral column and neurological deterioration.

In conclusion, patients presenting with low back pain and/or radicular pain or with or without monoparesis/paraparesis and with a clearly defined cystic lesion on imaging should alert to a treatable infective etiology like hydatid cyst.

References