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**INCIDENCE AND TYPES OF CARDIAC ARRHYTHMIAS
IN CARDIAC PATIENTS ATTENDING
PEDIATRIC CARDIOLOGY CLINIC**

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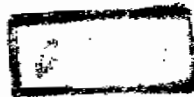
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ABBREVIATIONS

<i>A.F.</i>	<i>Atrial fibrillation</i>
<i>A.S.D.</i>	<i>Atrial septal defect.</i>
<i>A.V. block</i>	<i>Atrio-ventricular block.</i>
<i>A.V. dissociation</i>	<i>Atrio-ventricular dissociation.</i>
<i>A.V. junction</i>	<i>Atrio-ventricular junction</i>
<i>A.V. node</i>	<i>Atrio-ventricular node.</i>
<i>CSNRT</i>	<i>Corrected sinus node recovery time.</i>
<i>D.C.G.</i>	<i>Dynamic electrocardiography.</i>
<i>EAVNC</i>	<i>Enhanced A-V nodal conduction.</i>
<i>E.C.G.</i>	<i>Electrocardiogram.</i>
<i>L.G.L.</i>	<i>Lown - Ganong - Levine syndrome.</i>
<i>MI</i>	<i>Mitral incompetence.</i>
<i>MS</i>	<i>Mitral stenosis.</i>
<i>P.A.C.</i>	<i>Premature atrial contraction.</i>
<i>P.V.C.</i>	<i>Premature ventricular contraction.</i>
<i>R.A.D.</i>	<i>Right axis deviation.</i>
<i>RBBB</i>	<i>Right bundle branch block.</i>
<i>RSVT</i>	<i>Reentrant supraventricular tachycardia.</i>
<i>S.A. node</i>	<i>Sino-atrial node.</i>
<i>S.V.T.</i>	<i>Supraventricular tachycardia.</i>
<i>T.I.</i>	<i>Tricuspid incompetence</i>
<i>U.L.N.</i>	<i>Upper limit of normal.</i>
<i>V. max.</i>	<i>Maximum rate of depolarization.</i>
<i>W.P.W.</i>	<i>Wolff - Parkinson - White syndrome.</i>

**INTRODUCTION
AND
AIM OF THE WORK**

INTRODUCTION AND AIM OF WORK

Cardiac arrhythmias are frequently found in children. They are being recognized now with increasing frequency in infants and children, perhaps because the diagnostic methods for detection of arrhythmias have much improved and also because of the frequent occurrence of arrhythmias in children after cardiac operations which has extended widely in recent years.

Gillette et al. (1983), preferred the term dysrhythmia rather than arrhythmia, because the prefix "dys" indicated abnormal, which was the meaning intended.

Cardiac arrhythmias may be caused by abnormalities of impulse formation, impulse propagation, or a combination of both (Gilmour and Zipes, 1984).

Arrhythmias in children have the same names and similar morphology as arrhythmias in adult patients. However, in children the electrocardiographic rates of arrhythmias are much more rapid and the QRS complexes are much more narrow.

The prognosis of arrhythmias, their treatment and possibly even their subcellular mechanisms are different in children and adults (Garson, 1984).

Garson (1984) demonstrated the six most common arrhythmias or conduction disturbances in children, which included:

1. Disturbances of atrioventricular conduction.
2. Premature atrial contractions.
3. Supraventricular tachycardia.
4. Atrial flutter.
5. Ventricular arrhythmias.
6. Escape rhythm.

The aim of this study is to focus on arrhythmias in cardiac patients attending pediatric cardiology clinic in order to evaluate the types and incidence of cardiac arrhythmias in them.

***REVIEW
OF
LITERATURE***

ANATOMY OF THE CONDUCTION SYSTEM

The specialized conduction system of the heart consists of the sinus node, the atrioventricular node, the bundle of His (and its branches), and the peripheral Purkinje network (Kulbertus and Demoulin, 1975). The sinus node is situated in the lateral part of the sulcus between the superior vena cava and the right atrium. Under normal conditions, the sinus node is the pacemaker of the heart because it exhibits an inherent faster rate of discharge than any other structure in the heart, and its rate is controlled by the autonomic nervous system (Vassalle, 1977).

The atrioventricular (AV) junctional region can be subdivided into four morphologically distinct areas: a transitional zone between working atrial myocardium and the nodal zone; the compact AV node; the penetrating portion of the bundle of His; and the branching portion of the bundle of His (Fig. 1). The A.V. node is located at the base of the atrial septum closely adherent to the central fibrous body (Karpawich, 1981). Its functions include the capacity to delay the sinus impulse during ventricular filling, to protect the ventricles when the atrial rate becomes excessive and the ability to act as a secondary pacemaker in the event of failure of the sinus node (Curry, 1975). Sinus impulses are transmitted to the AV node through the interatrial septum and crista terminalis with no specialized tracts within these tissues (Lev and Bharati, 1977).

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