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Case Study On Drug Induced Adverse Drug Reaction During Pregnancy.

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I. INTRODUCTION

The prevention and treatment of diseases have been revolutionised by medications and vaccines. Medicinal products may have side effects in addition to their advantages, some of which may be unwelcome and/or unexpected. Pharmacovigilance is the science and practise concerned with the identification, evaluation, comprehension, and avoidance of side effects or any other issue with drugs or vaccines. Before being approved for use, all medications and vaccines go through extensive clinical trials to test their safety and efficacy. However, the clinical trial procedure entails evaluating these goods over a brief period of time in a relatively small group of carefully chosen individuals. Time. Once these drugs have been used by a diverse population, including those with various concomitant ailments, for an extended period of time, certain adverse effects might only become apparent.

• It has already been mentioned that post-marketing surveillance of medications is necessary to identify previously undetected side effects of treatment due to the inherent limitations of pre-marketing studies. Medicines

• Pharmacovigilance, the scientific term for this procedure, is described as "the study of the safety of marketed drugs under the realistic conditions of clinical use in large communities."

• Pharmacovigilance focuses on the identification, evaluation, and prevention of side effects or any other potential drug-related issues with the ultimate aim of assisting clinicians in making informed and secure therapeutic decisions.

• Pharmacovigilance is a crucial tool for keeping track of drug-related issues in "real world settings" following market authorization. A standard set of definitions is crucial for the pharmacovigilance system.

Adverse drug reaction

WHO: "A noxious and unintended response to a drug that occurs at doses typically used in man for the prevention, diagnosis, or treatment of diseases or for the alteration of physiological functions."

TYPES: Traditionally, ADRs have been divided into two categories:

Type A: (Augmented) Increased pharmacological impact is type A.Beta-adrenergic receptor antagonist risk/predisposing factors of ADRs are commonly connected with Bradycardia and have a predictable effect.

Type B: (Bizarre) Weird outcomes that aren't connected to a pharmaceutical effect UncommonA penicillin-related anaphylaxis unexpected antibiotic not influenced by dose extreme morbidity High death rate

Type C: (controlled) Time- and dose-related Uncommon pituitary-hypothalamic-adrenal axis related to the suppression of corticosteroid dosages over time.

Type D: (Delayed) Time-related Uncommon Carcinogenesis, Type D Most often dose-related occurs or becomes obvious after using the medicine.

Type E:(End of treatment) Retraction Opiate withdrawal syndrome is uncommon. occurs shortly after drug discontinuation.

Type F:(failure)Unexpected therapy failure Failure of oral contraception in the presence of enzyme inducer dose-related to Drug interactions are frequently to blame.

Diagnosis of Adverse drug Reaction

ADRs are one of the best imitators in medicine, frequently mimicking "traditional diseases" and presenting in many bodily systems. Weakness or drowsiness, biochemical or haematological arrangements (such as acute kidney injury, electrolyte imbalance, or anaemia), bleeding, gastrointestinal disturbances, hypoglycemia, or healthcare-associated infections

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like Clostridium difficile are just a few examples of how drug-related problems in hospitalised patients may present.

Prevention of adverse drug reaction

Eliminate all unwise drug use. Apply the proper dosage, method, and frequency. Take previous drug reactions into account.

II. METHODS AND MATERIALS:

1 detection of ADR

It is challenging to identify adverse drug reactions during clinical drug trials since most of them are ill-defined and unpredictable due to patient idosyncrasy or hypersensitivity. It might be challenging to demonstrate that a certain pathological disease is caused by teratogenic impact because the signs and symptoms are frequently sub-actue and do not form a recognised syndrome. Additionally, it is challenging to distinguish between diseases brought on by drugs and those that develop naturally. Adverse drug reactions have been characterised and quantified using challenge and rechallange techniques (i.e., repeated administration of the substance that caused the reaction).The most frequent causes of drug-induced side effects are excessive pharmacological effects, which can be easily seen. Other Adverse Drug Reactions have, however, been found using a variety of methods.

2 Disease-OrientedSystem

Here, a group of patients with a sickness that is assumed to be brought on by a medication (a case) is contrasted with a group that does not take the medication. Where the medicine under investigation is anticipated to be utilised nearly exclusively to treat a single condition, its value is greater. Therefore, it would be simpler to analyse all parkinsonian cases and choose all levodopa recipients from this group in order to examine the frequency of adverse reactions to levodopa. In his illustration, one criticism of the conventional drug-oriented method may be disproved by using the remaining people as control subjects.

3 Complication-OrientedSystems:

According to this method, people who have a recognised sickness or syndrome that is thought to be caused by drugs are studied. The technique's most well-known use is the clarification of the link between maternal thalidomide exposure and infant phocomelia. Under specific conditions, such as the fact that the event under inquiry is an uncommon condition, complexity-oriented systems are very valuable.The disease is clearly defined and generally simple to diagnose. The interval between drug exposure and disease discovery is brief. The studies might be prolonged if persistent long-term exposure to the drug is required for the onset of illness.

Reporting ADR

In all hospitals, chemists are accountable for identifying and disclosing adverse drug reactions. An adverse drug reaction or medication error needs to be reported right away to the patient's doctor. In the patient's medical file, a note on the medications administered and/or any adverse drug reactions should be adequately documented. Hospitals are urged to notify the FDA, medical associations, and the manufacturer of any suspected or serious adverse medication reactions.

To improve the effectiveness of recognising and reporting adverse responses, many doable strategies that might be used in the hospital context have been proposed. There are both retrospective and active surveillance methods, with active surveillance being utilised whenever it is practical. Individual chemists and organisations have developed a variety of reporting systems for use, each tailored to a certain setting.The use of periodic institutions is common to warn staff members of negative pharmacological effects.

PREGNANCY

It is the time frame between fertilisation and birth.A (Zygote) with 46 chromosomes is created when a male's sperm fertilises a female's egg (ovum) in the fallopian tube of the mother. The zygote begins to divide, and after dividing and developing for five to seven days, it affixes itself to the uterine wall. As soon as it is inserted into the uterine wall, it develops into an embryo and the placenta begins to form.

STAGES OF GESTATION:

The growing embryo known as a foetus was discovered eight weeks later.
The placenta provides oxygen and sustenance to the embryo or foetus and eliminates waste through the umbilical cord.

Week 1 to Week 12 of the first trimester

The first trimester is a time of great physical change for the body. Practically every organ system in the body is impacted by hormonal fluctuations. Even in the first few weeks of

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pregnancy, these changes might cause symptoms to appear. Stopping a period is a definite pregnancy indication. Changes could include: -Extreme fatigue
-Soft, bloated breasts.
-Upset stomach
–Mood changes
-Constipation (problems passing stools)
-Need to urinate more frequently
-headache, heartburn, and increase or loss of weight

(2nd trimester, weeks 13–28)
You may have noticed that symptoms like weariness and nausea are subsiding. However, the body is now undergoing other, more obvious modifications.
As the baby grows, the abdomen will enlarge.Stretch marks on the thighs, buttocks, abdomen, or breasts are changes.
-The skin surrounding the nipples becoming darker.
-A line on the skin that extends from the pubic hairline to the belly button
-Tingling or numb hands.

Third trimester (weeks 29 to 34):
A lot of women feel they need to use the loo significantly more frequently and have trouble breathing. This is because as the baby grows, the pressure on the organs increases.
Changes include: -Breathlessness
-Heart ache
-Ankle, finger, and facial swelling.
-Soft breasts - Sleep issues
-contractions that cause the baby to "drop," or go lower in your abdomen.

Sr no	Patient name	Drug name	Dose	Adverse drug reaction	treatment
1.	Shailenoritanagrej.	Amoxicillin	15mg	Allergic	Inj.Supacef
		Cefixime	500mg	Allergic	Tab.cefakind
2.	Shilpa shinde	Augmectin	Lowdose	Causing	Nottobegiveninpregnancy.
		NSAIDs	-	Miscarriage	1st trimester.
		Metrogyl	-	Miscarriage	-
3.	Ashvitadesai.	Inj.monocef	2g	Allergicdiarrhea.	Inj.Piptaz4.5g
		Ecosprin	150mg	Stomachupset.	Stopmedicine.
4.	R.K.Sharma	Metronidazole	250mg	Low birth weight baby.	Safe for only 3rd trimester.
		Clindamycin	150mg	Increase in neonatal infection.	For BV as oral alternatives but not the topical group B strep.
5.	Neha Yadav	Aspirin	75mg	Teratogenic effect and bleeding.	Acetaminophen.
		Lansoprazole	-	Birth defeact.	Omeprazole.
		Metformin	500mg	Abnormality	Insulin is recommended.
6.	Radhika gupta	Chloramphenicol	250mg	Grey baby syndrome,	Loratidine

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				fetal malnutrition.	
		Gentamycin	-	Birth defect.	Do not use in pregnancy.
7.	Sonalgupta	Combiflam	-	Allergic rashes.	Inj. Avilzcc.
		Eurocal	500mg	Irritation of GIT.	Omez Cap.

III. RESULT/DISCUSSION:

We have all talked about the uses and effects of all the drugs, and we have come to the conclusion that taking medication during pregnancy is both safe and harmful because it carries two lives that are temporarily connected. Both the mother and the foetus should be secure and develop healthily during that time. It is the duty of all doctors, including chemists, to provide patients with thorough, accurate, and up-to-date information on the risks and advantages of using pregnancy. This review summarises the safe and harmful list of medications.

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